

Effect of Census 2000 Undercount on Federal Funding to States and Selected Counties, 2002-2012

prepared

for

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ABSTRACT

Congress relies on the census for purposes of allocating funds under various federal grant programs to state governments. Inaccuracies in the census count can cause federal funds to be distributed in a way that is not fully consistent with congressional intent. Many state-funded grant programs to localities also rely on census counts, compounding the misallocation of grant money. For those jurisdictions that are counted relatively poorly by the census, this translates into fewer services for families with the greatest needs.

Analysis by the Census Bureau estimates that Census 2000 undercounted the actual U.S. population by a net of over three million individuals, representing an undercount rate of 1.18 percent.

This study focuses on eight programs with a combined total of \$145 billion in federal spending in FY 2001 that would be most affected by the undercount. Because this study does not consider all programs affected by census population figures, the total effect of the Census 2000 undercount on the allocation of federal funds is likely to exceed the estimates in this report.

For the eight federal grant programs included in this study, the Census 2000 undercount is estimated to cause the District of Columbia and the 31 states adversely affected by the undercount to lose \$4.1 billion in federal funding over the 2002-2012 fiscal year period. The shift in federal funds due to the undercount is most pronounced in metropolitan counties. These areas not only share in state losses from the undercount but also lose funds to other localities within the state because of the relatively high undercounts of urban areas.

The federal funding loss to the 58 largest counties adversely affected by the undercount is estimated to reach \$3.6 billion over the ten year period, or \$2,913 per uncounted person in these jurisdictions.

The census undercount not only redistributes funds among jurisdictions, it also causes a *net loss* to the states of funds from federal entitlement programs, such as Medicaid and Foster Care. For the programs included in this study, the Census 2000 undercount is estimated to reduce net federal funds to the states by \$478 million over the 2002-2012 period.

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EXECUTIVE SUMMARY

A number of federal grant programs rely on population counts from the decennial census for purposes of allocating funds among states. Consequently, a population undercount can affect the distribution of federal funds to states and localities that benefit from federal programs. From the perspective of jurisdictions that are counted relatively poorly by the census, this translates into fewer services for families in need.

The Presidential Members of the United States Census Monitoring Board¹ retained Dr. Eugene P. Ericksen of Temple University to analyze and extend the Census Bureau's estimate of the Census 2000 undercount and retained PricewaterhouseCoopers LLP (PwC) to project the effect of the Census 2000 undercount on the allocation of federal funds among the states and 112 selected counties over the next decade.²

Under the programs analyzed in this report, the District of Columbia and the 31 states adversely affected by the undercount are estimated to lose \$4.1 billion in federal funding over the 2002-2012 period. Counties not only share in the state losses but can also lose funds to other areas within the state because of the high relative undercounts. The federal funding loss in the 58 largest counties adversely affected by the undercount³ is estimated to reach \$3.6 billion over the 2002-2012 period, which translates into a loss of \$2,913 per uncounted person in these jurisdictions. Because this report does not include all population-based federal programs or any of the state programs distributed using census data, these estimates should be treated as conservative.

Previous Research

In March 2000, PricewaterhouseCoopers prepared a study⁴ for the Presidential Members of the U.S. Census Monitoring Board that estimated the impact of the projected Census 2000 undercount on the allocation of federal funds. This March 2000 report assumed similar undercount rates by demographic group as were estimated following the 1990 census and used Census population projections for 2000. The study projected that the 2000 census undercount rate would be 1.75 percent. This was considered a conservative estimate since the Census Bureau predicted an undercount rate of 1.9%.

¹ The Presidential Members of the U.S. Census Monitoring Board are Gilbert F. Casellas (Co-Chairman), Cruz M. Bustamante, Everett M. Ehrlich, and Lorraine A. Green.

² The 112 counties were selected as the 111 counties (excluding the District of Columbia) with enumerated population over 500,000 plus Richmond County, New York (Staten Island). Source: www.census.gov/population/cen2000/phc-t4/tab02.pdf.

³ Of the 112 counties examined in our study, 58 of them are adversely affected by the undercount.

⁴ Effect of Census 2000 Undercount on Federal Funding to States and Local Areas, 2002-2012 (March 2000).

Now that Census 2000 is complete, the data indicate that the Census Bureau counted a higher percentage of the population in 2000 than in 1990. The Census Bureau estimates that the Census 2000 net undercount rate was 1.18 percent.

This report updates PricewaterhouseCooper's previous study by using Dr. Ericksen's analysis and extension of the information the Census Bureau has made public about the Census 2000 undercount rate rather than projections based on the 1990 Census experience.

Methodology

This study generally follows the same methodology for estimating funding effects as the March 2000 PricewaterhouseCoopers report.

The eight programs studied accounted for \$145 billion in federal grant spending in fiscal year 2001 (see Table A). These programs represent 87 percent of the funding of major programs identified by the General Accounting Office (GAO) as being affected by the undercount. The effect of the undercount on smaller federal programs has been excluded. State programs that rely on census data to distribute funds to localities also have been excluded. Because all federal and state grant programs affected by the undercount were not analyzed in this study, the shift in funds due to the Census 2000 undercount is likely to be larger than is estimated in this report.

The methodology used in this report can be summarized as follows:

- 1. Based on the Census Bureau's and Dr. Ericksen's estimates of the Census 2000 undercount rate by state and selected county, derive adjusted state and county population levels for comparison with Census 2000 population counts.
- 2. Determine the formulae for allocating the eight federal grant programs included in this study.
- 3. Project national funding levels for these federal programs through 2012.
- 4. Project the effect of the Census 2000 undercount on the allocation of federal funds to states and selected counties over the period affected by Census 2000 (generally, fiscal years 2002-2012).

⁵ General Accounting Office, Formula Grants: Effects of Adjusted Population Counts on Federal Funding to States, GAO/HEHS-99-69, February 1999.

Table A. Federal Formula Grant Programs and FY 2001 Obligations [Dollar amounts in billions; Major programs affected by census undercount]

| | Program | Description | Obligations |
|----|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1. | Medicaid | Provides medical assistance (such as inpatient and outpatient hospital care, laboratory and x-ray services, and physician services) to low-income individuals. Eligible individuals include low-income children and pregnant women, low-income persons with disabilities, and low-income elderly persons. | \$130.0 |
| 2. | Foster Care | Provides support to homes and facilities that provide homes to needy foster children. Payments cover food, shelter, and supervision costs. Any foster child eligible for Aid to Families with Dependent Children, as in effect in 1995, is eligible for the program. | 5.1 |
| 3. | Rehabilitation Services Basic Support | Provides vocational rehabilitation to disabled individuals and their families. Services include reader services for the blind, interpreter services for the deaf, prosthetic devices, and job placement. | 2.4 |
| 4. | Child Care and Development Block Grant | Provides assistance to low-income families to improve the availability and quality of childcare. Name changed to Child Care and Development Fund Discretionary Funds. | 2.0 |
| 5. | Social Services Block Grant | Provides support to states to prevent or reduce dependency; promote self-sufficiency; prevent abuse, neglect, or exploitation of children and adults; prevent inappropriate institutional care; and secure institutional care where appropriate. Funds have been used for child day care, protective and emergency services for children and adults, and counseling. | 1.7 |
| 6. | Substance Abuse Prevention and Treatment Block Grant | Provides resources to states to design and implement programs to reduce drug and alcohol abuse and provide rehabilitation to individuals with drug and alcohol problems. | 1.7 |
| 7. | Adoption Assistance | Provides support for the adoption of children with special needs. Payments train professional staff and parents involved in the adoptions, provide resources to families adopting the children, and cover costs associated with placing children in adoptive homes. | 1.2 |
| 8. | Vocational Education Basic Grants | Provides grants to states for vocational education programs for youths and adults. Funds used for activities such as purchasing occupationally-relevant equipment and curriculum materials, providing career counseling and guidance, hiring staff, and offering remedial classes. | 1.1 |
| To | tal for eight programs included | in this report | \$145.1 |
| To | tal for major grant programs af | fected by undercount | \$166.6 |

Several key assumptions underlie the results in this report. First, Dr. Ericksen's extension of the Census Bureau's methods is assumed to be accurate. Second, the undercount rate is assumed to not vary substantially between group-quarters and non-group-quarters persons. Third, current formulae for allocating federal grant programs are assumed to remain unchanged over the 2002-12 period. Fourth, the national funding level for these programs over the FY 2002-2012 period is based on the Administration's fiscal year 2001 Current Services Budget. Last, states are assumed to allocate federal funding among local governments in proportion to their respective populations, as enumerated in the decennial census. To the extent possible, the results in this study are based on federal data, estimates, and methodology.

Effect of Census 2000 Undercount on Federal Funding to States

The Census Bureau has estimated a national net undercount rate for the non-group-quarters population in Census 2000 of 1.18 percent, totaling nearly 3.3 million persons missed. Assuming the same undercount rate for the group-quarters population, Dr. Ericksen estimates a total net undercount of 3.4 million. Over the 2002-2012 fiscal year period, for the eight programs analyzed, PricewaterhouseCoopers estimates that this Census 2000 undercount will result in a loss of \$4.1 billion in federal funding among the 31 states adversely affected by the undercount and the District of Columbia. Medicaid accounts for the largest shift in federal funds, representing 92 percent of all reallocated funds (see Figure A).

The estimated 2000 undercount is expected to cause the biggest dollar losses in California, Texas and Georgia (see Figure B). These are large states that have relatively large undercount rates.

Even in states that are relatively well counted by the census, certain portions of the state may have high undercount rates. For example, while Massachusetts is counted relatively well, Suffolk County (containing Boston, MA) is estimated to lose \$58 million in federal

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⁶ The Census Bureau only provided undercount rates for the non-group-quarters population. In order to evaluate the funding effects, we require an undercount estimate for the entire population. We assumed that the undercount rate for the group-quarters population equals the undercount rate for the non-group-quarters population. The alternative assumption of a perfect count of the group-quarters population would not materially affect our results.

⁷ The Census Bureau excluded the group-quarters population (7.8 million persons) from its undercount estimates. Assuming that the group-quarters population is undercounted at the same rate as the non-group-quarters population implies a national undercount of 3.4 million persons and an overall national undercount rate of 1.18 percent. Source: *Report of the Executive Steering Committee for Accuracy and Coverage Evaluation Policy*, March 1, 2001 and Dr. Eugene Ericksen, *Estimates of State and County Undercount Rates*, May 1, 2001.

⁸ Because of statutory provisions that guarantee minimum reimbursement rates, Medicaid funding for certain states would remain the same using either adjusted or unadjusted population counts. Some states, like New York, receive the minimum reimbursement of 50 percent of state expenditures under adjusted or unadjusted figures. The District of Columbia has a reimbursement rate set by statute at 70 percent. These areas experience significant undercounts, but the Medicaid minimum reimbursement provisions limit the federal funding losses from the undercount.

funds over the 2002-2012 period as a result of its high undercount. Similarly, while Illinois is counted relatively well, Cook County (containing part of Chicago, IL) is estimated to lose \$193 million in federal funds over the 2002-2012 period.

Note that the funding effects of the Census 2000 undercount are not a "zero-sum game." The shift in federal funds *away from* states that are counted relatively poorly is greater than the shift in funds *to* states that are counted relatively well. The Census 2000 undercount is expected to result in a *net* loss of \$478 million in federal funds to the states as a whole. This overall loss in federal funding is due to federal entitlement programs such as Medicaid, under which the national level of funding depends on population measures and is not a fixed sum.

Effect of Census 2000 Undercount on Federal Funding to Selected Counties

The Census 2000 undercount also will affect counties receiving a portion of federal grants allotted to states. The net impact on county funding depends on the effect of the undercount on both the allocation of federal funds between states (the "between-state" effect) and the allocation of funds among jurisdictions within a state (the "within-state" effect). The *net* impact of the Census 2000 undercount on the allocation of federal funds to counties is the sum of the between-state and within-state effects.

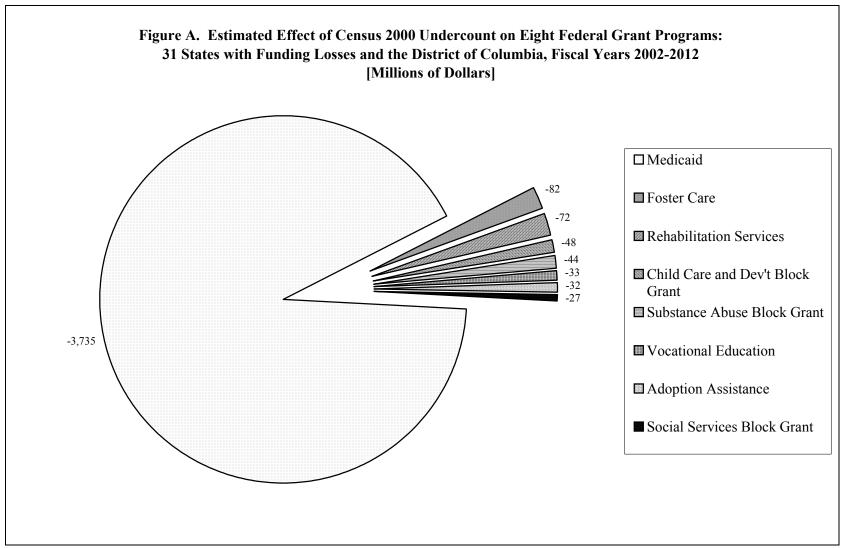
Over the 2002-2012 period, the federal funding loss to the 58 largest counties adversely affected by the undercount is estimated to reach \$3.6 billion, or \$2,913 per uncounted person in these jurisdictions. Because counties with large populations generally experience undercount rates that are higher than the state average, we assume that they will fail to receive their proportionate share of any funds distributed by the state based on unadjusted population counts. These "within-state" effects cause the funding losses of metropolitan areas to exceed the funding losses at the state level.

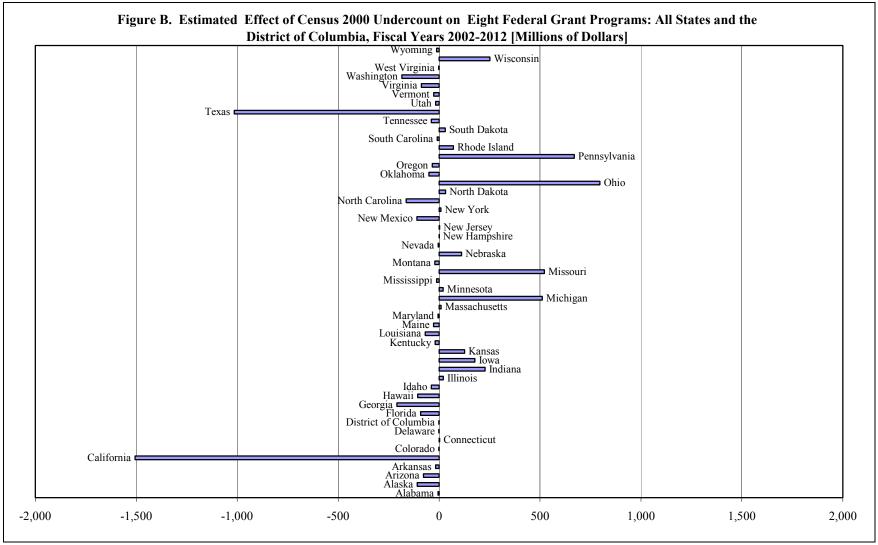
Eight counties are estimated to lose over \$100 million each in federal funds: Los Angeles County, CA; Bronx County, NY; Kings County, NY (which comprises the borough of Brooklyn, NY); Harris County, TX (which contains the city of Houston, TX); New York County, NY (which comprises the borough of Manhattan, NY); Cook County, IL (Chicago), Dallas County, TX, and Miami-Dade County, FL (see Figure C). In New York City, the funding loss across the five boroughs is estimated to reach \$847 million. Because some state-funded grant programs also rely on the decennial census for purposes of allocating funds among localities, the impact of the Census 2000 undercount on metropolitan areas will be larger than the federal funding effect.

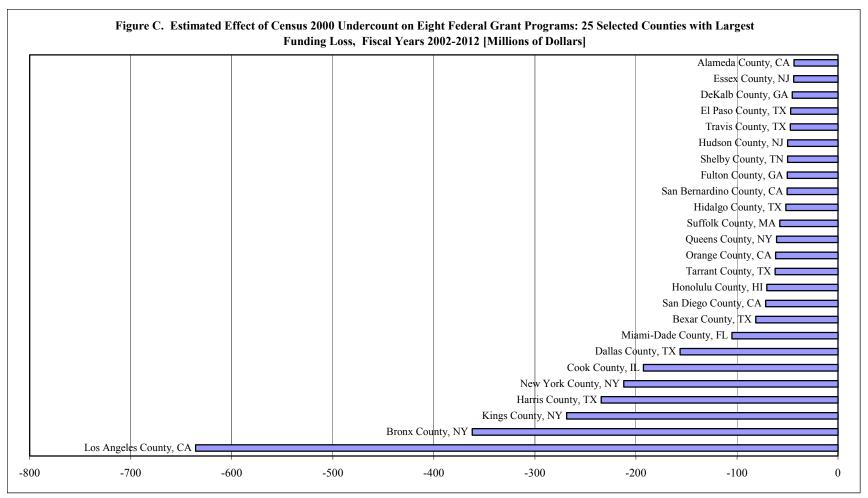
Conclusion

Congress relies on the census for purposes of allocating funds under various federal grant programs to state governments. Inaccuracies in the census count can cause federal funds to be distributed in a way that is not fully consistent with congressional intent. We estimate that unadjusted Census 2000 population estimates will result in a loss of \$4.1

billion in federal funding in the District of Columbia and the 31 states adversely affected over the FY 2002-2012 period. Many state-funded grant programs to localities also rely on census counts, compounding the misallocation of grant money. For those jurisdictions that are counted relatively poorly by the census, this translates into fewer services for families with the greatest needs.







I. INTRODUCTION

The Presidential Members of the United States Census Monitoring Board¹ retained PricewaterhouseCoopers LLP (PwC) to conduct an independent estimate of the funding effects of the Census 2000 undercount, based on undercount rate estimated by decennial census expert and Temple University statistics professor Dr. Eugene P. Ericksen. PwC was asked to project the undercount's effects on the allocation of federal funds among states and selected counties over the next decade.

This report updates the results of the March 2000 PwC report² which was based on projections of the Census 2000 undercount rate made before Census 2000 was completed.

Estimates of the Census 2000 undercount at the state and selected county levels are presented in this report. These undercounts are derived from undercount rates estimated by the Census Bureau and extended by Dr. Eugene P. Ericksen of Temple University. Using these undercount estimates, we calculate adjusted population counts for the states and selected counties for comparison with the Census 2000 counts.

Additionally, the impact of the Census 2000 undercount on the allocation of federal funds to states and selected counties is estimated in this report. Formula allocations under federal grant programs that depend on population counts were calculated with unadjusted and then adjusted population figures to estimate the change in federal funds flowing to each state. Changes in funding levels at the state level were then translated into changes at the county level.

The main findings of the report are summarized in the final section.

Six appendices accompany this report:

- 1. Appendix A reports Census 2000 state population totals (adjusted and unadjusted) along with estimated undercounts and undercount rates of persons over and under 18 years of age.
- 2. Appendix B shows 2000 population totals by selected county with and without adjustments for the estimated undercount along with number of persons missed and the undercount rate.
- 3. Appendix C describes the federal programs analyzed in this report.
- 4. Appendix D provides detailed information on the estimated funding effects of the Census 2000 undercount by state by program.
- 5. Appendix E provides details on the funding effects for selected counties.
- 6. Appendix F lists contact information.

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¹ The Presidential Members of the U.S. Census Monitoring Board are Gilbert F. Casellas (Co-Chairman), Cruz M. Bustamante, Everett M. Ehrlich, and Lorraine A. Green.

² Effect of Census 2000 Undercount on Federal Funding to States and Local Areas, 2002-2012 (March 2000).

II. ESTIMATE OF CENSUS 2000 UNDERCOUNT

A. Methodology Used by the Census Bureau and Dr. Ericksen

For the 2000 Census, the Census Bureau conducted the Accuracy and Coverage Evaluation (A.C.E.) survey, the successor to the Census 1990 Post-Enumeration Survey (PES), to determine the accuracy of the census count. Historically the census has not achieved an exact count of the population because it has missed certain individuals and incorrectly enumerated others.³ For the A.C.E. survey, the Bureau conducted detailed interviews with a sample of households. The results of this intensive interview process can be compared to the official 2000 census enumeration to assess the accuracy of the census. This information can be used to estimate the net undercount (persons missed less persons incorrectly enumerated) by geographic region or demographic group, and to prepare an adjusted 2000 population count (i.e., the official count plus an estimate of net uncounted persons).

The A.C.E. survey established undercount adjustment factors for 448 post-strata (e.g., Black renters in small Metropolitan Statistical Areas or White owners in large Metropolitan Statistical Areas in the North). From the results of the A.C.E. survey, the Census Bureau developed undercount rates for the 50 states, and the District of Columbia. Dr. Eugene P. Ericksen, a census expert and professor of statistics at Temple University, working on behalf of the Presidential Members of the U.S. Census Monitoring Board, has reviewed the estimates of the state undercount rates and extended the analysis for counties with population in excess of 500,000 plus Richmond County (Staten Island), NY.

For the states and the District of Columbia, Dr. Ericksen obtained the undercount adjustment factors from a file that the Bureau provided. The file contains adjustment factors for 448 post-strata for each of the 50 states plus the District of Columbia. For each state-level post-stratum, Dr. Ericksen divided the dual system undercount estimate by the census count to calculate the adjustment factor, or ratio. Dr. Ericksen then created a weighted average of the adjustment factors, where the population shares in the post-strata were the weights. For the large county undercount rate estimates, Dr. Ericksen did not have the exact distributions of post-strata populations by county, but he approximated them with 2000 Census state totals by racial group and 1990 census data sorted by racial group and housing tenure.

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³ Incorrect enumerations would arise from the inclusion of a child born after April 1, a person who died before April 1, or a college student living away from home but counted in the parents' house instead of his or her usual place of residence.

⁴ Dr. Ericksen's estimates, like the Census Bureau rate upon which they are based, are for non-group-quarters residents. For this study we will be assuming that the undercount rate for group-quarters residents is comparable by state and post-strata.

⁵ Access to this file was given to the Census Subcommittee, the National Academy of Sciences, and the Census Monitoring Board in February 2001.

B. Estimated 2000 Undercount by State

Based on the Census Bureau's methodology, the undercount rate for the non-group-quarters population in Census 2000 is estimated to be 1.18 percent or nearly 3.3 million persons. Assuming the same undercount rate for the group-quarters population, Dr. Ericksen estimates a total national undercount of 3.4 million (see Table 1).⁶ Table A-2 in Appendix A shows net undercount rates by state for populations over and under 18 years of age. Children have undercount rates that exceed the national average. Nationally, persons under the age of 18 are estimated by Dr. Ericksen to have an undercount rate of 1.56 percent⁷ of the actual population, resulting in over 1.1 million uncounted children. Consequently, funding programs targeting children, such as the Child Care and Development Block Grant, are especially vulnerable to the undercount.⁸

Four states account for nearly 40 percent of the estimated Census 2000 undercount: California (522,796), Texas (373,567), New York (209,123), and Florida (200,670). States (plus the District of Columbia) with the highest percentage undercounts are Alaska (2.67 percent), Hawaii (2.16 percent), the District of Columbia (2.15 percent), New Mexico (1.94 percent), and Texas (1.76 percent). States with the lowest undercount rates are Minnesota (0.29 percent), Missouri (0.46 percent), North Dakota (0.47 percent), Iowa (0.48 percent), Nebraska (0.56 percent), and South Dakota (0.56 percent).

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⁶ The Census Bureau excluded the group-quarters population (7.8 million persons) from its undercount estimates. In order to evaluate the funding effects, we require an undercount estimate for the entire population. We assumed that the undercount rate for the group-quarters population equals the undercount rate for the non-group-quarters population. Assuming that the group-quarters population is undercounted at the same rate as the non-group-quarters population implies a national undercount of 3.4 million persons and an overall national undercount rate of 1.18 percent. The alternative assumption of a perfect count of the group-quarters population would not materially affect our results. Source: *Report of the Executive Steering Committee for Accuracy and Coverage Evaluation Policy*, March 1, 2001 and Dr. Eugene Ericksen, *Estimates of State and County Undercount Rates*, May 1, 2001.

⁷ In the *Report of the Executive Steering Committee for Accuracy and Coverage Evaluation Policy*, March 1, 2001, the Census Bureau reports a national undercount for the under 18 population of 1.54 percent.

[§] See the GAO report for a detailed description of the funding formulas. General Accounting Office, Formula Grants: Effects of Adjusted Population Counts on Federal Funding to States, GAO/HEHS-99-69, February 1999.

Table 1. Estimated Census 2000 Undercount by State

| Table 1. Estimated Census 2000 Undercount by State | | | | | | | | |
|----------------------------------------------------|--------------------|------------------------|---------------------|--------------------------|--|--|--|--|
| State | 2000 Populatio | n Projections | Estimated 2000 | Census Undercount | | | | |
| | Without adjustment | With adjustment | Number ^a | Rateb | | | | |
| | for undercount | for undercount | | | | | | |
| United States | 281,421,906 | 284,777,491 | 3,355,585 | 1.18 | | | | |
| Olinea States | 201, 121,200 | 201,777,171 | 2,200,000 | 1.10 | | | | |
| Alabama | 4,447,100 | 4,500,658 | 53,558 | 1.19 | | | | |
| Alaska | 626,932 | 644,130 | 17,198 | 2.67 | | | | |
| Arizona | | | | 1.43 | | | | |
| | 5,130,632 | 5,205,064 2,708,063 | 74,432 | 1.43 | | | | |
| Arkansas | 2,673,400 | | 34,663 | | | | | |
| California | 33,871,648 | 34,394,444 | 522,796 | 1.52 | | | | |
| Colorado | 4,301,261 | 4,356,148 | 54,887 | 1.26 | | | | |
| Connecticut | 3,405,565 | 3,438,923 | 33,358 | 0.97 | | | | |
| Delaware | 783,600 | 795,533 | 11,933 | 1.50 | | | | |
| District of Columbia | 572,059 | 584,629 | 12,570 | 2.15 | | | | |
| Florida | 15,982,378 | 16,183,048 | 200,670 | 1.24 | | | | |
| Georgia | 8,186,453 | 8,309,433 | 122,980 | 1.48 | | | | |
| Hawaii | 1,211,537 | 1,238,284 | 26,747 | 2.16 | | | | |
| Idaho | 1,293,953 | 1,315,528 | 21,575 | 1.64 | | | | |
| Illinois | 12,419,293 | 12,527,025 | 107,732 | 0.86 | | | | |
| Indiana | 6,080,485 | 6,127,668 | 47,183 | 0.77 | | | | |
| Iowa | 2,926,324 | 2,940,438 | 14,114 | 0.48 | | | | |
| Kansas | 2,688,418 | 2,706,279 | 17,861 | 0.66 | | | | |
| Kentucky | 4,041,769 | 4,092,102 | 50,333 | 1.23 | | | | |
| Louisiana | 4,468,976 | 4,529,674 | 60,698 | 1.34 | | | | |
| Maine | 1,274,923 | 1,292,108 | 17,185 | 1.33 | | | | |
| Maryland | 5,296,486 | 5,371,690 | 75,204 | 1.40 | | | | |
| Massachusetts | 6,349,097 | 6,397,720 | 48,623 | 0.76 | | | | |
| Michigan | 9,938,444 | 10,009,512 | 71,068 | 0.71 | | | | |
| Minnesota | 4,919,479 | 4,933,787 | 14,308 | 0.29 | | | | |
| Mississippi | 2,844,658 | 2,880,375 | 35,717 | 1.24 | | | | |
| Missouri | 5,595,211 | 5,621,068 | 25,857 | 0.46 | | | | |
| Montana | 902,195 | 916,585 | 14,390 | 1.57 | | | | |
| Nebraska | 1,711,263 | 1,720,900 | 9,637 | 0.56 | | | | |
| Nevada | 1,998,257 | 2,032,401 | 34,144 | 1.68 | | | | |
| New Hampshire | 1,235,786 | 1,249,910 | 14,124 | 1.13 | | | | |
| New Jersey | 8,414,350 | 8,512,241 | 97,891 | 1.15 | | | | |
| New Mexico | 1,819,046 | 1,855,034 | 35,988 | 1.94 | | | | |
| New York | 18,976,457 | 19,185,580 | 209,123 | 1.09 | | | | |
| North Carolina | 8,049,313 | 8,160,293 | 110,980 | 1.36 | | | | |
| North Dakota | 642,200 | 645,233 | 3,033 | 0.47 | | | | |
| Ohio | 11,353,140 | 11,418,224 | 65,084 | 0.57 | | | | |
| Oklahoma | 3,450,654 | 3,499,649 | 48,995 | 1.40 | | | | |
| Oregon | 3,421,399 | 3,465,410 | 44,011 | 1.27 | | | | |
| | | 12,382,591 | | 0.82 | | | | |
| Pennsylvania | 12,281,054 | | 101,537 | | | | | |
| Rhode Island | 1,048,319 | 1,057,306 | 8,987 | 0.85 | | | | |
| South Carolina | 4,012,012 | 4,060,741 | 48,729 | 1.20 | | | | |
| South Dakota | 754,844 | 759,095 | 4,251 | 0.56 | | | | |
| Tennessee | 5,689,283 | 5,760,133 | 70,850 | 1.23 | | | | |
| Texas | 20,851,820 | 21,225,387 | 373,567 | 1.76 | | | | |
| Utah | 2,233,169 | 2,263,729 | 30,560 | 1.35 | | | | |
| Vermont | 608,827 | 618,161 | 9,334 | 1.51 | | | | |
| Virginia | 7,078,515 | 7,173,928 | 95,413 | 1.33 | | | | |
| Washington | 5,894,121 | 5,978,417 | 84,296 | 1.41 | | | | |
| West Virginia | 1,808,344 | 1,830,122 | 21,778 | 1.19 | | | | |
| Wisconsin | 5,363,675 | 5,401,485 | 37,810 | 0.70 | | | | |
| Wyoming | 493,782 | 501,607 | 7,825 | 1.56 | | | | |

^a Adjusted minus unadjusted 2000 population projections. Dr. Ericksen's undercount totals are slightly larger than those estimated by the Census Bureau (which excluded the group-quarters population from its analysis). For further explanation see footnote 6 on page 3.

b Undercount as a percent of adjusted population. Source: U.S. Census Bureau and Dr. Eugene Ericksen, Estimates of State and County Undercount Rates, May 1, 2001.

C. Estimated 2000 Undercount by Selected County

Appendix B provides net undercount rates of 112 selected counties. These counties are the 111 counties with population counts in excess of 500,000 plus Richmond County, NY (Staten Island). For these selected counties the average undercount rate is estimated to be 1.28 percent in comparison with the national average 1.18 percent. Table 2 lists the 25 counties (out of the selected 112) with the highest undercount rates. Counties with the highest percentage undercounts are Bronx County, NY (2.68 percent), Hidalgo County, TX (2.38 percent), Hudson County, NJ (2.19 percent), DeKalb County, GA (2.15 percent), Dallas County, TX (2.08 percent). Counties with the greatest number of persons missed are Los Angeles County, CA (175,378), Cook County (Chicago), IL (76,819), Harris County (Houston), TX (71,592), Dallas County, TX (47,229), and Miami-Dade, FL (43,546).

Table 2. Census 2000 Undercount by Selected County: 25 Counties with the Largest Undercount Rates

| County | 2000 Populat | ion Projections | Estimated 2000 | 0 Undercount |
|--------------------------------|----------------|-----------------|----------------|--------------|
| | Without | With adjustment | Number | Ratea |
| | adjustment for | for undercount | | |
| | undercount | | | |
| Total, 112 Selected Counties | 125,460,358 | 127,081,879 | 1,621,521 | 1.28 |
| | | | | |
| 1. Bronx County, NY | 1,332,650 | 1,369,358 | 36,708 | 2.68 |
| 2. Hidalgo County, TX | 569,463 | 583,365 | 13,902 | 2.38 |
| 3. Hudson County, NJ | 608,975 | 622,595 | 13,620 | 2.19 |
| 4. DeKalb County, GA | 665,865 | 680,465 | 14,600 | 2.15 |
| 5. Dallas County, TX | 2,218,899 | 2,266,128 | 47,229 | 2.08 |
| 6. Baltimore City, MD | 651,154 | 664,993 | 13,839 | 2.08 |
| 7. Harris County, TX | 3,400,578 | 3,472,170 | 71,592 | 2.06 |
| 8. El Paso County, TX | 679,622 | 693,922 | 14,300 | 2.06 |
| 9. Honolulu County, HI | 876,156 | 894,559 | 18,403 | 2.06 |
| 10. Fulton County, GA | 816,006 | 833,051 | 17,045 | 2.05 |
| 11. Prince George's County, MD | 801,515 | 817,093 | 15,578 | 1.91 |
| 12. New York County, NY | 1,537,195 | 1,567,060 | 29,865 | 1.91 |
| 13. Bexar County, TX | 1,392,931 | 1,419,991 | 27,060 | 1.91 |
| 14. Miami-Dade County, FL | 2,253,362 | 2,297,091 | 43,729 | 1.90 |
| 15. Travis County, TX | 812,280 | 828,012 | 15,732 | 1.90 |
| 16. Essex County, NJ | 793,633 | 808,624 | 14,991 | 1.85 |
| 17. Los Angeles County, CA | 9,519,338 | 9,694,716 | 175,378 | 1.81 |
| 18. Kings County, NY | 2,465,326 | 2,508,872 | 43,546 | 1.74 |
| 19. Mecklenburg County, NC | 695,454 | 707,386 | 11,932 | 1.69 |
| 20. Tarrant County, TX | 1,446,219 | 1,470,880 | 24,661 | 1.68 |
| 21. Shelby County, TN | 897,472 | 912,769 | 15,297 | 1.68 |
| 22. Oklahoma County, OK | 660,448 | 671,690 | 11,242 | 1.67 |
| 23. Suffolk County, MA | 689,807 | 701,348 | 11,541 | 1.65 |
| 24. Denver County, CO | 554,636 | 563,619 | 8,983 | 1.59 |
| 25. Fresno County, CA | 799,407 | 812,347 | 12,940 | 1.59 |

^a Undercount as a percent of adjusted population. Source: Dr. Eugene Ericksen, *Estimates of State and County Undercount Rates*, May 1, 2001.

Table 3. Census 2000 Undercount by Selected County: 25 Counties with the Largest Total Undercount

| | ion Projections | Estimated 2000 Undercount | | |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Without | With adjustment | Number | Ratea | |
| adjustment for | for undercount | | | |
| undercount | | | | |
| 125,460,358 | 127,081,879 | 1,621,521 | 1.28 | |
| | | | | |
| 9,519,338 | 9,694,716 | • | 1.81 | |
| 5,376,741 | 5,453,560 | | 1.41 | |
| 3,400,578 | 3,472,170 | | 2.06 | |
| 2,218,899 | 2,266,128 | | 2.08 | |
| 2,253,362 | 2,297,091 | 43,729 | 1.90 | |
| 2,465,326 | 2,508,872 | 43,546 | 1.74 | |
| 3,072,149 | 3,109,081 | 36,932 | 1.19 | |
| 1,332,650 | 1,369,358 | 36,708 | 2.68 | |
| 2,813,833 | 2,850,103 | 36,270 | 1.27 | |
| 2,846,289 | 2,881,546 | 35,257 | 1.22 | |
| 2,061,162 | 2,091,394 | 30,232 | 1.45 | |
| 1,537,195 | 1,567,060 | 29,865 | 1.91 | |
| 2,229,379 | 2,257,703 | 28,324 | 1.25 | |
| 1,392,931 | 1,419,991 | 27,060 | 1.91 | |
| 1,446,219 | 1,470,880 | 24,661 | 1.68 | |
| 1,709,434 | 1,732,375 | 22,941 | 1.32 | |
| 1,375,765 | 1,396,215 | | 1.46 | |
| 1,737,034 | 1,757,102 | 20,068 | 1.14 | |
| 1,623,018 | 1,642,842 | 19,824 | 1.21 | |
| 1,443,741 | 1,463,267 | 19,526 | 1.33 | |
| 1,682,585 | 1,702,011 | 19,426 | 1.14 | |
| 1,517,550 | 1,536,930 | 19,380 | 1.26 | |
| 876,156 | 894,559 | 18,403 | 2.06 | |
| 1,545,387 | 1,563,399 | 18,012 | 1.15 | |
| 816,006 | 833,051 | * | 2.05 | |
| | adjustment for undercount 125,460,358 9,519,338 5,376,741 3,400,578 2,218,899 2,253,362 2,465,326 3,072,149 1,332,650 2,813,833 2,846,289 2,061,162 1,537,195 2,229,379 1,392,931 1,446,219 1,709,434 1,375,765 1,737,034 1,623,018 1,443,741 1,682,585 1,517,550 876,156 1,545,387 | adjustment for undercount for undercount 125,460,358 127,081,879 9,519,338 9,694,716 5,376,741 5,453,560 3,400,578 3,472,170 2,218,899 2,266,128 2,253,362 2,297,091 2,465,326 2,508,872 3,072,149 3,109,081 1,332,650 1,369,358 2,813,833 2,850,103 2,846,289 2,881,546 2,061,162 2,091,394 1,537,195 1,567,060 2,229,379 2,257,703 1,392,931 1,419,991 1,446,219 1,470,880 1,709,434 1,732,375 1,375,765 1,396,215 1,737,034 1,757,102 1,623,018 1,642,842 1,443,741 1,463,267 1,582,585 1,702,011 1,517,550 1,536,930 876,156 894,559 1,545,387 1,563,399 816,006 833,051 | adjustment for undercount for undercount 125,460,358 127,081,879 1,621,521 9,519,338 9,694,716 175,378 5,376,741 5,453,560 76,819 3,400,578 3,472,170 71,592 2,218,899 2,266,128 47,229 2,253,362 2,297,091 43,729 2,465,326 2,508,872 43,546 3,072,149 3,109,081 36,932 1,332,650 1,369,358 36,708 2,813,833 2,850,103 36,270 2,846,289 2,881,546 35,257 2,061,162 2,091,394 30,232 1,537,195 1,567,060 29,865 2,229,379 2,257,703 28,324 1,392,931 1,419,991 27,060 1,446,219 1,470,880 24,661 1,709,434 1,732,375 22,941 1,375,765 1,396,215 20,450 1,737,034 1,757,102 20,068 1,623,018 1,642,842 19,824 | |

^a Undercount as a percent of adjusted population. Source: Dr. Eugene Ericksen, *Estimates of State and County Undercount Rates*, May 1, 2001.

III. FUNDING EFFECT OF CENSUS 2000 UNDERCOUNT

A. Federal Programs Analyzed

This study examines the effect of the Census 2000 undercount on the allocation of funds under eight federal grant programs: (1) Medicaid; (2) Foster Care; (3) Rehabilitation Services Basic Support; (4) Social Services Block Grant; (5) Substance Abuse Prevention and Treatment Block Grant; (6) Adoption Assistance; (7) Child Care and Development Block Grant; and (8) Vocational Education Basic Grants. These eight programs account for all of the funding shifts identified in the General Accounting Office (GAO) study of the effects of the 1990 census undercount on federal funding to states in fiscal year 1998.

The GAO study focused on 25 large formula grant programs, whose funding represented 90 percent of the total federal grants affected by the census undercount. Of the 25 programs analyzed in the GAO study, ten programs (amounting to \$21 billion in 2001) were excluded because their funding formulae depended on population variables for which undercount rates are not available (e.g., the population below the poverty line). Of the remaining 15 programs, five of the programs (amounting to \$43 billion) were not affected by the undercount because the formulae had components which made the undercount immaterial. Two programs (amounting to \$2 million) used population figures adjusted for the undercount.

The remaining eight programs (listed in Table 4) were affected by the undercount. These programs represent over 87 percent of the funding under major programs that depend on unadjusted census counts.

Table 4: Federal Grant Programs and FY 2001 Obligations[Obligations in billions of dollars; Major programs affected by census undercount]

Program **Obligations** Medicaid \$130.0 Foster Care 5.1 Rehabilitation Services Basic Support 2.4 Child Care and Development Block Grant 2.0 Social Services Block Grant 1.7 Substance Abuse Prevention and Treatment Block Grant 1.7 Adoption Assistance 1.2 **Vocational Education Basic Grants** 1.1 Subtotal, eight programs included in study 145.1 Total for major grant programs affected by undercount \$166.6

Source: Budget of the United States, FY 2002, GAO, and PricewaterhouseCoopers calculations.

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⁹ General Accounting Office, Formula Grants: Effects of Adjusted Population Counts on Federal Funding to States, GAO/HEHS-99-69, February 1999.

¹⁰ These two programs, administered by the Department of Labor, rely on estimates of the civilian labor force. If the Department of Labor does not adjust its estimates of the labor force, these programs would also be affected by the undercount.

B. Current Services Funding Levels over FY 2002-2012 Period

Depending on the first year of impact, Census 2000 will affect federal grant allocations over the 2002-2011 or the 2003-2012 period. 11

For each of the eight federal grant programs analyzed in this report, the Administration's FY 2002 budget projects Current Services funding levels through 2011. The Current Services Budget estimates funding levels necessary to continue programs at a level equal to the most recently funded year (i.e., 2001 for the 2002 budget). In essence, it is a prediction of the funding necessary to support current law expenditures over the budget period.

The Current Services Budget projects that funding of *discretionary* programs will grow with inflation. Unlike entitlement programs, the funding of discretionary programs is dependent on the annual Congressional appropriations process. Three of the eight federal grant programs included in this study are classified as discretionary: (1) Substance Abuse Block Grant, (2) Vocational Education, and (3) Child Care and Development Block Grant.

The Current Services Budget projects that funding for *entitlement* programs will grow with the underlying eligible population and inflation. Three of the federal programs included in this study are classified as entitlement programs: (1) Medicaid, (2) Foster Care, and (3) Adoption Assistance.

The remaining two programs included in this study, Social Services Block Grant and Rehabilitation Services, are *mandatory* programs that are projected to grow at rates consistent with their enacting legislation.

The fiscal year 2002 budget includes Current Services funding levels through 2011. Funding levels for four programs included in this study were extrapolated through 2012 based on the growth rates projected by the Office of Management and Budget over the FY 2002-2011 budget period (see Table 5).

Current Services funding levels for the Substance Abuse Block Grant are extrapolated through 2012 using the annual Office of Management and Budget general budget inflator for the 2003-2011 period of 2.2 percent. The Current Services Budget projects slowing growth for the entitlement programs, and this trend is assumed to continue through 2012. No extrapolations were necessary for the mandatory programs because the 2000 Census will affect their funding allocations over 2002-2011, the current budget period.

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¹¹ This report assumes that the effects of Census 2000 are not incorporated until 2000 population figures are used in allocation formulas. If population estimates from earlier years, such as 1999, are adjusted consistent with Census 2000, allocations could be affected before 2002.

Assuming the Current Services spending levels, census population counts from Census 2000 ultimately will be used to distribute \$2.5 trillion over the 2002-2012 fiscal year period.

Table 5. Current Services Budget Projections for Eight Federal Grant Programs, FY 2002-2012[Fiscal Years; Millions of Dollars]

| Program | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2002-2012 |
|---------------------------------------------------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| 1. Medicaid | - | \$153,786 | \$167,410 | \$182,381 | \$198,256 | \$215,576 | \$234,266 | \$254,293 | \$276,362 | \$299,739 | \$325,572 | \$2,307,641 |
| 2. Foster Care | - | 5,361 | 5,726 | 6,214 | 6,734 | 7,269 | 7,847 | 8,469 | 9,139 | 9,882 | 10,669 | 77,311 |
| 3. Rehabilitation Services Basic Support | 2,481 | 2,541 | 2,607 | 2,675 | 2,742 | 2,811 | 2,880 | 2,952 | 3,026 | 3,102 | - | 27,817 |
| 4. Child Care and Development Block Grant | 2,042 | 2,085 | 2,129 | 2,174 | 2,219 | 2,266 | 2,313 | 2,362 | 2,411 | 2,462 | - | 22,463 |
| 3. Adoption Assistance | - | 1,512 | 1,615 | 1,753 | 1,900 | 2,051 | 2,214 | 2,389 | 2,578 | 2,788 | 3,010 | 21,809 |
| 5. Substance Abuse Prevention and Treatment Block Grant | - | 1,763 | 1,803 | 1,843 | 1,884 | 1,926 | 1,969 | 2,013 | 2,058 | 2,104 | 2,151 | 19,514 |
| 6. Social Services Block Grant | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 | 1,700 | - | 17,000 |
| 7. Vocational Education Basic Grants | 1,100 | 1,125 | 1,150 | 1,175 | 1,201 | 1,228 | 1,256 | 1,284 | 1,312 | 1,342 | - | 12,172 |
| Total | \$7,323 | \$169,874 | \$184,140 | \$199,915 | \$216,636 | \$234,827 | \$254,444 | \$275,462 | \$298,586 | \$323,117 | \$341,401 | \$2,505,727 |

Source: Administration Fiscal Year 2002 Budget and PricewaterhouseCoopers calculations.

Note: Baseline estimates are shown for the 10-year period over which funding levels are affected by Census 2000.

C. Funding Effect of Census 2000 Undercount on States

State allocation shares under federal grant programs are determined before the onset of the funding year; thus, state allocations for the current year are based on population estimates from several years earlier. The Census Bureau publishes population estimates for the years between decennial censuses. These estimates are based on the decennial population enumeration and are updated using administrative records (e.g., birth and death certificates). Consequently, errors in the decennial population count persist for ten years, until the next census enumeration. Consequently, the Census 2000 undercount will affect federal grant allocations over a ten-year period.

For example, the funding formula for the Social Services Block Grant program depends on population estimates from the second prior year. Thus, Census 2000 will affect Social Services Block Grant allocations over the 2002-2011 period. For the eight programs included in this report, Census 2000 will first affect grant allocations in either 2002 or 2003, and the effect will persist over the 2002-2011 or 2003-2012 period, depending on the program.

The effect of the Census 2000 undercount on the allocation of federal funds to states initially was calculated for a base year and then extrapolated over the 2002-2012 period. The base year for each grant program was determined as: the first year affected by the 2000 census figures or the most recent year for which data were available for all of the variables (other than population) in the funding formula. For most programs, 2002 was the base year used in the calculations. Because data for some of the formulae were not available to calculate the 2002 allocation, the base year for the corresponding programs is 2001. For example, the formula for Vocational Education depends on per capita personal income by state as released by the Bureau of Economic Analysis (BEA) for the second preceding year. Final per capita personal income figures are available for 1999; consequently, the base year for the Vocational Education program is 2001.

Once a base year was established for each program, we calculated state funding allocations using both official and adjusted 2000 state population projections. These calculations take into account all elements of the current funding formulae, including hold harmless and minimum share provisions. Each state's share of national program funding in the base year was then determined under both the official and adjusted 2000 population projections. The difference between these two shares of national program funding is an estimate of the impact of the Census 2000 undercount on the state's allocation of federal funds. For example, suppose that a state's share of federal program funds increases from 3.0 percent to 3.1 percent, in the base year, as a result of using adjusted versus official 2000 population projections. For this state, the effect of the Census 2000 undercount is estimated to be a loss of 0.1 percentage points (3.1 percent minus 3.0 percent) of national program funding.

For the eight federal grant programs analyzed in this study, the Census 2000 undercount is estimated to reduce federal funding in 31 states and the District of

Columbia by \$4.1 billion over the 2002-2012 period (see Table 6). In 2003 alone, the undercount is estimated to reduce federal funds allocated to these states by \$277 million. By comparison, the General Accounting Office estimated that the effect of the 1990 census undercount on these federal programs was to shift \$449 million among states in 1998. Because the estimated 2000 undercount is both smaller and more uniform across jurisdictions than the estimated 1990 undercount, the total amount of federal funds reallocated is smaller.

States that are counted relatively well in the census are estimated to receive higher levels of federal funding as a result of the undercount; however, the additional federal funds received by these states are less than the loss of federal funds in the other states. The effect of census undercounts on the federal funding of *entitlement* programs is not a "zero-sum game" among the states because an increase in funding to one state does not require a reduction in funding to other states. For the federal programs analyzed in this study, federal funds allocated to all 50 states and the District of Columbia are estimated to be \$478 million less over the 2002-2012 fiscal year period as a result of the Census 2000 undercount.

The loss of funds over the 2002-2012 period for the eight analyzed programs ranges from \$26 per undercounted person in Colorado to over \$6,300 per person missed by the census in Alaska (see Table 7). In 2003, the first year fully impacted by the undercount, the funding loss in 31 undercounted states and the District of Columbia averages \$114 per uncounted individual. This figure is less than GAO's 1998 estimate of \$145 per uncounted individual, which was based on the higher 1990 undercount rate.

Of the eight federal programs analyzed in this report, Medicaid accounts for 92 percent of the federal funds that would be shifted as a result of the Census 2000 undercount. As a percent of total program funding, the programs most affected by the Census 2000 undercount are Vocational Education (0.28 percent) and Rehabilitation Services (0.27 percent). Table 8 summarizes the impact of the Census 2000 undercount by program.

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¹² Because of statutory provisions that guarantee minimum reimbursement rates, Medicaid funding for certain states would remain the same using either adjusted or unadjusted population counts. Some states, like New York, receive the minimum reimbursement of 50 percent of state expenditures under adjusted or unadjusted figures. The District of Columbia has a reimbursement rate set by statute at 70 percent. These areas experience significant undercounts, but the Medicaid minimum reimbursement provisions limit the federal funding losses from the undercount. Table D-5 in Appendix D lists the effect of the census undercount on state funding levels under the Medicaid program.

¹³ These percentages translate into \$33 million for Vocational Education and \$72 million for Rehabilitation Services.

Table 6. Estimated Funding Effect of Census 2000 Undercount on Eight Federal Grant Programs by State, FY 2002-2012
[Fiscal Years; Millions of Dollars]

| [1 iscar 1 cars, withfolis of Donars] | | | | | | | | | |
|---------------------------------------|---------------------|------------------|------------------|--------------|--------------|------------------|--------------------|-----------------------------|--|
| State | 2002 | 2003 | 2004 | 2005 | 2006 | 2012 | 2002-2012 | Percent of Total Funding | |
| Alabama | -\$0.1 | -\$0.3 | -\$0.4 | -\$0.4 | -\$0.4 | -\$0.5 | -\$4.9 | -0.01% | |
| Alaska | -0.3 | -7.3 | -7.9 | -8.6 | -9.4 | -14.8 | -\$108.5 | -1.53% | |
| Arizona | -0.5 | -5.3 | -5.7 | -6.2 | -6.7 | -10.1 | -\$77.2 | -0.23% | |
| Arkansas | -0.1 | -1.2 | -1.3 | -1.4 | -1.5 | -2.2 | -\$17.1 | -0.08% | |
| California | -3.8 | -102.1 | -110.7 | -120.2 | -130.2 | -205.8 | -\$1,506.2 | -0.59% | |
| Colorado | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -\$1.4 | -0.01% | |
| Connecticut | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.1 | \$2.6 | 0.01% | |
| Delaware | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -\$1.0 | -0.02% | |
| District of Columbia | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0 | -\$1.1 | -0.01% | |
| Florida | -0.5 | -6.2 | -6.8 | -7.3 | -7.9 | -12.2 | -\$91.6 | -0.09% | |
| Georgia | -1.1 | -14.3 | -15.4 | -16.7 | -18.1 | -27.8 | -\$208.8 | -0.41% | |
| Hawaii | -0.4 | -7.2 | -7.8 | -8.4 | -9.1 | -14.2 | -\$105.5 | -1.35% | |
| Idaho | -0.2 | -2.6 | -2.8 | -3.1 | -3.3 | -5.1 | -\$38.1 | -0.36% | |
| Illinois | 1.6 | 2.0 | 2.0 | 2.0 | 2.1 | 0.4 | \$21.1 | 0.03% | |
| Indiana | 1.0 | 15.5 | 16.8 | 18.2 | 19.7 | 30.5 | \$227.6 | 0.49% | |
| Iowa | 0.8 | 12.1 | 13.1 | 14.2 | 15.4 | 23.6 | \$177.1 | 0.80% | |
| Kansas | 0.6 | 8.7 | 9.4 | 10.2 | 11.0 | 16.9 | \$126.7 | 0.65% | |
| Kentucky | -0.1 | -1.3 | -1.4 | -1.5 | -1.7 | -2.5 | -\$19.3 | -0.05% | |
| Louisiana | -0.3 | -4.7 | -5.1 | -5.5 | -6.0 | -9.2 | -\$68.8 | -0.14% | |
| Maine | -0.1 | -1.9 | -2.0 | -2.2 | -2.4 | -3.7 | -\$27.5 | -0.15% | |
| Maryland | -0.4 | -0.5 | -0.5 | -0.5 | -0.5 | -0.1 | -\$5.5 | -0.02% | |
| Massachusetts | 0.7 | 1.0 | 1.0 | 1.0 | 1.0 | 0.2 | \$10.3 | 0.02% | |
| Michigan | 1.8 | 34.8 | 37.7 | 40.9 | 44.3 | 69.1 | \$511.3 | 0.69% | |
| Minnesota | 1.5 | 1.9 | 1.9 | 2.0 | 2.0 | 0.4 | \$20.5 | 0.05% | |
| Mississippi | -0.1 | -0.9 | -0.9 | -1.0 | -1.1 | -1.6 | -\$12.5 | -0.04% | |
| Missouri | 1.6 | 35.3 | 38.3 | 41.6 | 45.1 | 71.0 | \$521.5 | 0.90% | |
| Montana | -0.1 | -1.5 | -1.6 | -1.7 | -1.8 | -2.8 | -\$21.3 | -0.26% | |
| Nebraska | 0.4 | 7.6 | 8.2 | 8.9 | 9.6 | 15.0 | \$111.4 | 0.80% | |
| Nevada | -0.3 | -0.4 * | -0.4 * | -0.4 * | -0.5 * | -0.1 | -\$4.6 | -0.06% * | |
| New Hampshire | | | | | | 0.0 | \$0.1 | * | |
| New Jersey | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | -* -14.9 | \$1.5 | | |
| New Mexico | -0.4 | -7.5 | -8.1 | -8.8 | -9.5 | | -\$109.9 | -0.52% * | |
| New York | 0.7 | 0.8 | 0.9 | 0.9 | 0.9 | 0.2 | \$9.2 | | |
| North Carolina | -0.7 | -11.1 2.2 | -12.0 2.3 | -13.0 | -14.1 | -21.9 4.3 | -\$162.9 | -0.23% | |
| North Dakota | 0.1 2.5 | 54.0 | 58.6 | 2.5 | 2.8 | 108.1 | \$31.9 \$796.1 | 0.56% 0.82% | |
| Ohio Oklahoma | | | | 63.6 | 68.9 | | | | |
| Oregon | -0.4 -0.1 | -3.4 -2.3 | -3.7 -2.5 | -4.0 -2.7 | -4.3 -2.9 | -6.5 -4.5 | -\$50.0 -\$33.6 | -0.18% -0.12% | |
| Pennsylvania | - 0.1 1.4 | 45.2 | 49.1 | 53.3 | 57.8 | 92.0 | \$669.8 | 0.56% | |
| Rhode Island | 0.1 | 43.2 | 5.2 | 5.6 | 6.1 | 92.0 | \$71.0 | 0.56% | |
| South Carolina | -0.1 | -0.6 | -0.7 | -0.7 | -0.8 | -1.2 | -\$9.2 | -0.02% | |
| South Dakota | 0.2 | 2.1 | 2.3 | 2.5 | 2.7 | 4.1 | \$30.7 | 0.57% | |
| Tennessee | -0.2 | -2.6 | -2.9 | -3.1 | -3.4 | -5.2 | -\$38.8 | -0.06% | |
| Texas | -4.6 | -69.4 | -75.1 | -81.3 | -88.0 | -135.5 | -\$1,014.6 | -0.74% | |
| Utah | -0.1 | -1.2 | -1.3 | -1.4 | -1.5 | -2.3 | -\$17.4 | -0.14% | |
| Vermont | -0.1 | -1.8 | -2.0 | -2.1 | -2.3 | -3.7 | -\$26.9 | -0.36% | |
| Virginia | -0.1 | -6.0 | -6.5 | -7.0 | -7.6 | -11.7 | -\$87.5 | -0.27% | |
| Washington | -0.4 | -12.5 | -13.5 | -14.7 | -16.0 | -25.2 | -\$184.7 | -0.41% | |
| West Virginia | -* | -0.1 | -0.2 | -0.2 | -0.2 | -0.3 | -\$2.1 | -0.01% | |
| Wisconsin | 1.0 | 17.1 | 18.6 | 20.1 | 21.8 | 33.9 | \$251.9 | 0.64% | |
| Wyoming | -0.1 | -0.8 | -0.9 | -1.0 | -1.0 | -1.6 | -\$11.9 | -0.42% | |
| Total, United States | \$0.0 | -\$31.9 | -\$34.7 | -\$37.8 | -\$41.1 | -\$67.4 | -\$478.3 | -0.02% | |
| Funding Gains | \$16.4 | \$245.7 | \$265.9 | \$288.1 | \$311.8 | \$479.9 | \$3,594.8 | 0.15% | |
| Funding Losses | -\$16.4 | -\$277.6 | -\$300.6 | -\$326.0 | -\$352.9 | -\$547.3 | -\$4,073.1 | -0.17% | |
| | | | | | – | , . | , | | |

Note: An asterisk (*) denotes a positive shift of less than \$50,000 or 0.005%; a negative asterisk (-*) denotes a negative shift of less than \$50,000.

Table 7. Estimated Funding Effect of Census 2000 Undercount on Eight Federal Programs: States with High Undercount Rates, FY 2002-2012

| State | 8 | | | | | |
|----------------------|------------|-----------|--|--|--|--|
| | Individual | | | | | |
| | 2003 | 2002-2012 | | | | |
| Alabama | -\$6 | -\$91 | | | | |
| Alaska | -426 | -6,306 | | | | |
| Arizona | -71 | -1,037 | | | | |
| Arkansas | -34 | -493 | | | | |
| California | -195 | -2,881 | | | | |
| Colorado | -2 | -26 | | | | |
| Delaware | -8 | -81 | | | | |
| District of Columbia | -9 | -91 | | | | |
| Florida | -31 | -457 | | | | |
| Georgia | -116 | -1,697 | | | | |
| Hawaii | -268 | -3,945 | | | | |
| Idaho | -121 | -1,768 | | | | |
| Kentucky | -26 | -383 | | | | |
| Louisiana | -77 | -1,133 | | | | |
| Maine | -108 | -1,601 | | | | |
| Maryland | -7 | -74 | | | | |
| Mississippi | -24 | -349 | | | | |
| Montana | -101 | -1,482 | | | | |
| Nevada | -12 | -134 | | | | |
| New Mexico | -208 | -3,055 | | | | |
| North Carolina | -100 | -1,468 | | | | |
| Oklahoma | -70 | -1,020 | | | | |
| Oregon | -52 | -764 | | | | |
| South Carolina | -13 | -188 | | | | |
| Tennessee | -37 | -547 | | | | |
| Texas | -186 | -2,716 | | | | |
| Utah | -39 | -570 | | | | |
| Vermont | -195 | -2,881 | | | | |
| Virginia | -63 | -917 | | | | |
| Washington | -148 | -2,191 | | | | |
| West Virginia | -6 | -95 | | | | |
| Wyoming | -104 | -1,523 | | | | |
| Weighted Average | -\$114 | -\$1,679 | | | | |

Table 8. Estimated Funding Effect of Census 2000 Undercount by Federal Grant Program, FY 2002-2012

[Millions of Dollars]

| | Total Funding | State Funding Losses Due to Undercount in States With Losses | State Funding Gains Due to Undercount in States With Gains | Losses as a Percent of Total Funding | Gains as a Percent of Total Funding |
|------------------------------------------------------|------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------|
| Medicaid | \$2,181,418 | -\$3,735 | \$3,275 | -0.17% | 0.15% |
| Foster Care | 77,061 | -82 | 65 | -0.11% | 0.08% |
| Rehabilitation Services Basic Support | 26,732 | -72 | 72 | -0.27% | 0.27% |
| Adoption Assistance | 21,808 | -32 | 31 | -0.15% | 0.14% |
| Child Care and Development Block Grant | 21,722 | -48 | 48 | -0.22% | 0.22% |
| Substance Abuse Prevention and Treatment Block Grant | 18,260 | -44 | 44 | -0.24% | 0.24% |
| Social Services Block Grant | 16,905 | -27 | 27 | -0.16% | 0.16% |
| Vocational Education Basic Grants | 11,682 | -33 | 33 | -0.28% | 0.28% |
| Total | \$2,375,587 | -\$4,073 | \$3,595 | -0.17% | 0.15% |

Source: PricewaterhouseCoopers calculations.

Note: Total funding levels reflect totals of amounts distributed to states. Amounts distributed to territories and undistributed amounts are excluded.

D. Funding Effect of Census 2000 Undercount on Counties

This section analyzes the effect of the Census 2000 undercount on counties. The county effects are estimated under the assumption that states allocate federal funds among county in proportion to their official census population counts.

The Census 2000 undercount can affect federal funding to counties in two ways. First, the undercount at the state level affects the allocation of funds among the states, which alters the amount of funds that states have available to pass through to local governments (the "between-state" funding effect). For example, the Census 2000 undercount is estimated to cause the state of Illinois to receive a larger share of the federal funds under the programs analyzed than it would with an accurate census count (other states, therefore, receive a smaller share because of the undercount). Counties in the state, such as Cook County (Chicago), benefit from the fact that the state receives these additional funds. The *between-state* effect measures the effect on metropolitan areas of the funding shifts among the states due to the census undercount.

Second, the undercount at the local level may affect a state's allocation of federal funds among its counties (the "within-state" funding effect). Assuming the state allocates funds to local areas within the state using population counts, any undercount would distort the flow of funds within the state. Because Cook County is estimated to experience a high undercount rate relative to the other areas in Illinois, it receives a smaller share of the state funds than it would have gotten under an accurate census count. Therefore, it experiences a negative within-state effect. The *within-state* effect measures the impact of the undercount on funding allocations within states.

The "net" funding effect of the census undercount on a county is the sum of the between-state and within-state funding effects. Because the between-state and within-state effects could have the same or different signs, the *net* effect could be larger or smaller than the between-state or within-state effects alone.

1. Between-State Funding Effect

For the counties within each state, the between-state funding effect was estimated in two steps. The effect of the Census 2000 undercount on the state's level of federal funding was first calculated for the 2002-2012 period (see section III.C., above). The funding effect at the state level was then apportioned among the counties in proportion to their *unadjusted* population counts. Thus, counties in states that lose federal funding as a result of the Census 2000 undercount are each estimated to share proportionately in this funding loss.

2. Within-State Funding Effect

For the counties within each state, the within-state funding effect was estimated in four steps. First, the state's share of federal funding over the 2002-2012 period was

determined based on adjusted 2000 population counts (as described in section III.C., above). Second, state funding was apportioned among the counties in proportion to their estimated 2000 *adjusted* census counts. Third, state funding was apportioned among the counties in proportion to their 2000 *official* (unadjusted) census counts. Finally, the within-state funding effect was estimated by subtracting the county funding levels determined in step two (based on *adjusted* population counts) from step three (based on *official* population counts).

Counties with an undercount rate higher than the overall state average have a negative within-state funding effect, while relatively well counted areas have a positive within-state funding effect.

3. Net Funding Effect

For the counties within each state, the net funding effect of the Census 2000 undercount over the 2002-2012 period was calculated as the sum of the between-state and within-state funding effects. For any county, these two funding effects can work in the same or opposite directions. For example, Cook County is estimated to have a positive \$9 million between-state funding effect, because the State of Illinois is relatively well counted by the census. However, Cook County is estimated to have a negative \$202 million within-state funding effect because it is relatively poorly counted by the census compared to other jurisdictions within the state. Thus, the net federal funding effect in Cook County of the Census 2000 undercount is negative \$193 million (\$9 million less \$202 million) over the 2002-2012 period, because the funding loss from the within-state effect is larger than the funding gain from the between-state effect. The federal funding loss to the 58 largest counties adversely affected by the undercount is estimated to reach \$3.6 billion over the period, or an average of \$2,913 per uncounted person in these jurisdictions.

Table 9 shows the net funding effect of the Census 2000 undercount on the 25 counties that are estimated to experience the largest loss in federal funding over the 2002-2012 period. The five counties expecting the largest funding loss from the Census 2000 undercount are Los Angeles County, CA (\$636 million), Bronx County, NY (\$362 million), Kings County, NY (\$269 million), Harris County, TX (\$234 million), and New York County, NY (\$212 million). Results for all 112 selected counties are shown in Appendix E.

This analysis only considers the effect of the Census 2000 undercount on *federal* funds allocated to local governments. Because a variety of *state* grant programs are also distributed to local governments on the basis of official population counts, the total shift in funds from federal and state grant programs will likely be larger than the estimates in this report.

Table 9. Estimated Effect of Census 2000 Undercount on Eight Federal Grant Programs: 25 Selected Counties with the Largest Funding Loss, FY 2002-2012

[Dollar amounts in thousands]

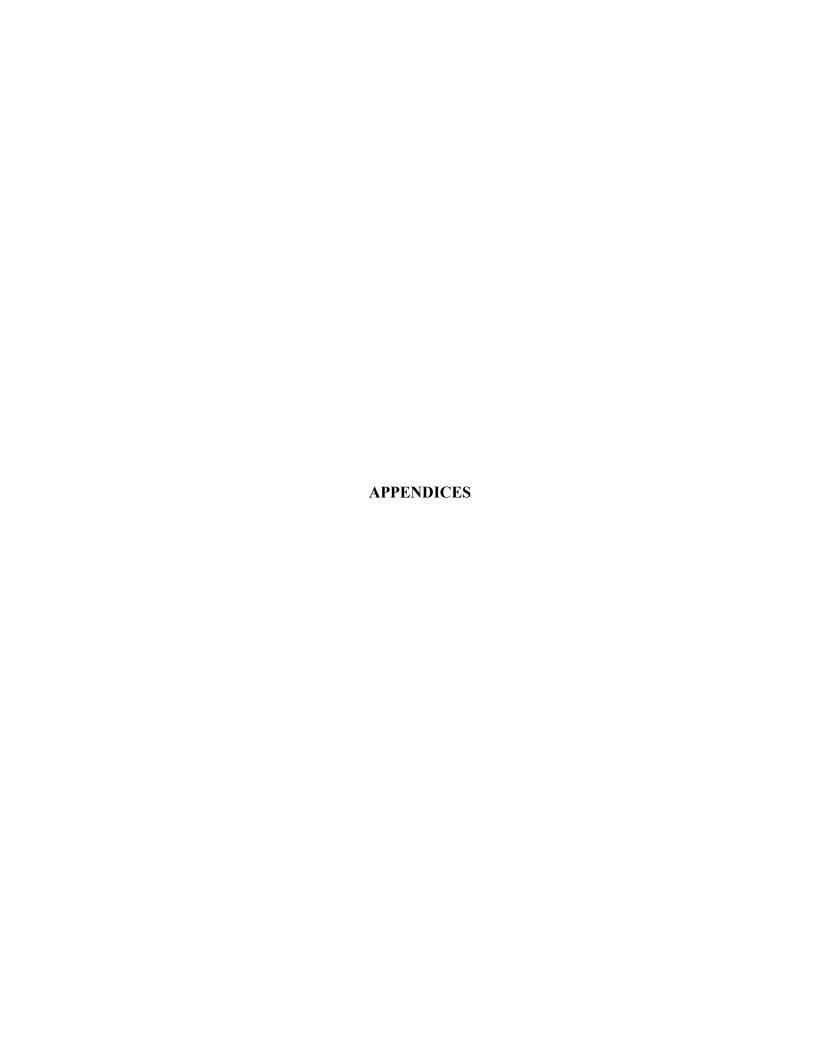
| County | Net Funding |
|-------------------------------|-------------|
| County | Effect |
| 1. Los Angeles County, CA | -635,860 |
| 2. Bronx County, NY | -361,999 |
| 3. Kings County, NY | -268,503 |
| 4. Harris County, TX | -234,400 |
| 5. New York County, NY | -212,094 |
| 6. Cook County, IL | -192,570 |
| 7. Dallas County, TX | -156,278 |
| 8. Miami-Dade County, FL | -104,947 |
| 9. Bexar County, TX | -81,378 |
| 10. San Diego County, CA | -71,626 |
| 11. Honolulu County, HI | -70,396 |
| 12. Tarrant County, TX | -62,301 |
| 13. Orange County, CA | -61,761 |
| 14. Queens County, NY | -60,764 |
| 15. Suffolk County, MA | -57,661 |
| 16. Hidalgo County, TX | -51,615 |
| 17. San Bernardino County, CA | -50,289 |
| 18. Fulton County, GA | -50,243 |
| 19. Shelby County, TN | -49,935 |
| 20. Hudson County, NJ | -49,876 |
| 21. Travis County, TX | -47,148 |
| 22. El Paso County, TX | -46,797 |
| 23. DeKalb County, GA | -45,246 |
| 24. Essex County, NJ | -43,900 |
| 25. Alameda County, CA | -43,599 |

IV. CONCLUSION

This study expands on a previous study by PricewaterhouseCoopers that was released prior to the completion of Census 2000. In that study, we estimated the Census 2000 undercount based on the Census 1990 experience. Analysis of preliminary data by the Census Bureau and Dr. Eugene P. Ericksen of Temple University indicates that Census 2000 achieved a significantly lower undercount rate than Census 1990. This study uses Dr. Ericksen's analysis to estimate the effect of the Census 2000 undercount on the allocation of eight federal grant programs. We estimate that the Census 2000 undercount will cause the District of Columbia and 31 states adversely affected by the undercount to lose \$4.1 billion in federal funding over the 2002-2012 fiscal year period.

The shift in federal funds due to the Census 2000 undercount is most pronounced in large urban counties because relatively poorly counted demographic groups are concentrated in these areas. They not only share in state losses from the undercount but also lose funds to other localities within the state because of the high relative undercounts of urban areas. The federal funding loss to the 58 largest counties adversely affected by the undercount is estimated to reach \$3.6 billion over the period, or \$2,913 per uncounted person in these jurisdictions. Because this report does not include all population-based federal programs or any of the state programs distributed using census data, these estimates should be treated as conservative.

The census undercount not only redistributes funds among jurisdictions, it also causes a net loss in federal funding to the states from entitlement programs such as Medicaid and Foster Care. For the programs included in this study, the Census 2000 undercount is estimated to reduce federal funds to *all* states combined by \$478 million over the 2002-2012 period.



Appendix A: 2000 Population Counts and Estimated Undercounts of Persons Over and Under 18 Years of Age by State Table A-1. Unadjusted and Adjusted Year 2000 Census Population Counts by State Adjusted Population Counts 2 Unadjusted Population Counts 1 State/US Total Over 18 Under 18 State/US Total Over 18 Under 18 281,421,906 209,128,094 284,777,491 211,341,436 73,436,055 United States 72,293,812 Alabama 4,447,100 3,323,678 1,123,422 4,500,658 3,354,582 1,146,075 Alaska 626,932 436,215 190,717 644,130 448,098 196,033 5,130,632 3,763,685 1.366,947 5.205.064 3,814,335 1.390.730 Arizona Arkansas 2,673,400 1,993,031 680,369 2,708,063 2,014,343 693,720 24,621,819 9,249,829 34,394,444 9,395,773 California 33,871,648 24,998,670 4,301,261 1,100,795 1,118,249 Colorado 3.200.466 4.356.148 3,237,899 3,405,565 2,563,877 841,688 3,438,923 2,586,781 852,141 Connecticut 783,600 589,013 194,587 795,533 596,972 198,561 Delaware 114,992 118,750 District of Columbia 572,059 457.067 584,629 465,879 3,714,633 Florida 5.982.378 12.336.038 3,646,340 16,183,048 12.468.415 6,017,219 8,186,453 2,169,234 6,094,998 2,214,435 Georgia 8.309.433 Hawaii 1.211.537 915.770 295.767 1.238.284 933.251 305,033 1,293,953 924,923 369,030 1,315,528 938,913 376,615 Idaho Illinois 12.419.293 9.173.842 3.245.451 12.527.025 9.246.298 3.280.727 Indiana 6.080.485 4.506.089 1.574.396 6.127.668 4.534.460 1.593.208 733,638 2,940,438 2,201,785 738,653 Iowa 2,926,324 2,192,686 Kansas 2.688.418 1.975.425 712.993 2.706.279 1.986.671 719,609 Kentucky 4,041,769 3,046,951 994,818 4,092,102 3,078,249 1,013,852 4,468,976 1,219,799 4,529,674 Louisiana 3,249,177 3,283,507 1,246,167 1 274 923 973.685 301,238 1,292,108 983.235 308,873 Maine Maryland 5,296,486 3,940,314 1,356,172 5,371,690 3,990,873 1,380,817 Massachusetts 6,349,097 4,849,033 1,500,064 6,397,720 4,884,369 1,513,351 9.938.444 7.342.677 2.595.767 10.009.512 7.385.498 Michigan 2.624.013 Minnesota 4,919,479 3,632,585 1,286,894 4,933,787 3,638,847 1,294,940 Mississippi 2,844,658 2,069,471 775,187 2,880,375 2,089,389 790,985 5,595,211 1,440,465 4,167,519 1,427,692 5,621,068 4,180,603 Missouri Montana 902.195 672,133 230.062 916,585 681.946 234,639 Nebraska 1,711,263 1,261,021 450,242 1,720,900 1,266,872 454,028 511,799 1,511,027 1.998.257 1,486,458 2.032.401 521.375 Nevada New Hampshir 1,235,786 926,224 309,562 1,249,910 934,690 315,220 2,114,580 New Jersey 8,414,350 6,326,792 2,087,558 8,512,241 6,397,661 1.819.046 508 574 1,855,034 1.335.507 519.526 New Mexico 1.310.472 New York 18,976,457 14,286,350 4,690,107 19,185,580 14,428,065 4,757,515 North Carolina 8,049,313 6,085,266 1,964,047 8,160,293 6,156,125 2,004,168 <u>161,9</u>31 645.233 North Dakota 642,200 481.351 160,849 483.302 11,353,140 2,888,339 11,418,224 8,495,548 2,922,676 Ohio 8,464,801 Oklahoma 3,450,654 2,558,294 892,360 3,499,649 2,586,403 913,246 2,603,182 3,421,399 3,465,410 862,228 Oregon 2.574.873 846.526 Pennsylvania 12,281,054 9,358,833 2,922,221 12,382,591 9,416,396 2,966,196 1.048.319 247.822 1.057.306 250.464 Rhode Island 800.497 806.842 3,031,370 1,009,641 4.060.741 1.029.371 South Carolina 4,012,012 3,002,371 202,649 759,095 554,727 204,368 South Dakota 754.844 552.195 5,689,283 4,290,762 1,398,521 5,760,133 4,333,431 1,426,701 Tennessee 5,993,523 Texas 20,851,820 14,965,061 5,886,759 21,225,387 15,231,864 Utah 2,233,169 .514.471 718.698 2,263,729 1.533.133 730,597 608,827 147,523 151,495 Vermont 461.304 618.161 466,666 Virginia 7,078,515 5,340,253 1,738,262 7,173,928 5,404,866 1,769,062 Washington 5,894,121 4,380,278 1,513,843 5,978,417 4,435,942 1,542,475 1.405.951 402.393 408.954 West Virginia 1.808.344 1.830.122 1,421,169 Wisconsin 5,363,675 3,994,919 1,368,756 5,401,485 4,017,548 1,383,938

Wyoming

493,782

128,873

501,607

370,236

131,372

¹Source: U.S. Census Bureau, Census 2000 Redistricting Data (P.L. 94-171) Summary File, Table 1.

²Equals unadjusted population count plus undercount (See Table A-2).

| Table A-2. Year 2 | | Undercount | | | Undercount Rate | | | | |
|----------------------|----------------|----------------------|-----------------------|----------------|-----------------|----------|--|--|--|
| State | State/US Total | Over 18 ² | Under 18 ² | State/US Total | Over 18 | Under 18 | | | |
| United States | 3,355,585 | 2,213,342 | 1,142,243 | 1.18 | 1.05 | 1.50 | | | |
| Alabama | 53,558 | 30,904 | 22,653 | 1.19 | 0.92 | 1.94 | | | |
| Alaska | 17,198 | 11,883 | 5,316 | 2.67 | 2.65 | 2.72 | | | |
| Arizona | 74,432 | 50,650 | 23,783 | 1.43 | 1.33 | 1.70 | | | |
| Arkansas | 34,663 | 21,312 | 13,351 | 1.28 | 1.06 | 1.90 | | | |
| California | 522,796 | 376.851 | 145.944 | 1.52 | 1.51 | 1.54 | | | |
| Colorado | 54,887 | 37,433 | 17,454 | 1.26 | 1.16 | 1.55 | | | |
| Connecticut | 33,358 | 22,904 | 10,453 | 0.97 | 0.89 | 1.22 | | | |
| Delaware | 11,933 | 7,959 | 3,974 | 1.50 | 1.33 | 2.00 | | | |
| District of Columbia | 12,570 | 8,812 | 3,758 | 2.15 | 1.89 | 3.09 | | | |
| Florida | 200,670 | 132.377 | 68.293 | 1.24 | 1.06 | 1.82 | | | |
| Georgia | 122,980 | 77,779 | 45,201 | 1.48 | 1.28 | 2.04 | | | |
| Hawaii | 26,747 | 17,481 | 9,266 | 2.16 | 1.87 | 3.01 | | | |
| Idaho | 21,575 | 13,990 | 7,585 | 1.64 | 1.49 | 2.00 | | | |
| Illinois | 107,732 | 72,456 | 35,276 | 0.86 | 0.78 | 1.07 | | | |
| Indiana | 47.183 | 28.371 | 18.812 | 0.86 | 0.78 | 1.0 | | | |
| | • | 9,099 | | | | | | | |
| Iowa | 14,114 | | 5,015 | 0.48 | 0.41 | 0.69 | | | |
| Kansas | 17,861 | 11,246 | 6,616 | 0.66 | 0.57 | 0.91 | | | |
| Kentucky | 50,333 | 31,298 | 19,034 | 1.23 | 1.02 | 1.85 | | | |
| Louisiana | 60,698 | 34,330 | 26,368 | 1.34 | 1.05 | 2.11 | | | |
| Maine | 17,185 | 9,550 | 7,635 | 1.33 | 0.97 | 2.44 | | | |
| Maryland | 75,204 | 50,559 | 24,645 | 1.40 | 1.27 | 1.78 | | | |
| Massachusetts | 48,623 | 35,336 | 13,287 | 0.76 | 0.72 | 0.88 | | | |
| Michigan | 71,068 | 42,821 | 28,246 | 0.71 | 0.58 | 1.00 | | | |
| Minnesota | 14,308 | 6,262 | 8,046 | 0.29 | 0.17 | 0.60 | | | |
| Mississippi | 35,717 | 19,918 | 15,798 | 1.24 | 0.95 | 1.9 | | | |
| Missouri | 25,857 | 13,084 | 12,773 | 0.46 | 0.31 | 0.88 | | | |
| Montana | 14,390 | 9,813 | 4,577 | 1.57 | 1.44 | 1.93 | | | |
| Nebraska | 9,637 | 5,851 | 3,786 | 0.56 | 0.46 | 0.84 | | | |
| Nevada | 34,144 | 24,569 | 9,576 | 1.68 | 1.63 | 1.82 | | | |
| New Hampshire | 14.124 | 8.466 | 5.658 | 1.13 | 0.91 | 1.78 | | | |
| New Jersey | 97,891 | 70,869 | 27,022 | 1.15 | 1.11 | 1.29 | | | |
| New Mexico | 35,988 | 25,035 | 10,952 | 1.94 | 1.87 | 2.11 | | | |
| New York | 209,123 | 141,715 | 67,408 | 1.09 | 0.98 | 1.39 | | | |
| North Carolina | 110,980 | 70,859 | 40,121 | 1.36 | 1.15 | 1.99 | | | |
| North Dakota | 3.033 | 1.951 | 1.082 | 0.47 | 0.40 | 0.6 | | | |
| Ohio | 65,084 | 30,747 | 34,337 | 0.57 | 0.36 | 1.14 | | | |
| Oklahoma | 48,995 | 28,109 | 20,886 | 1.40 | 1.09 | 2.2 | | | |
| Oregon | 44,011 | 28,309 | 15,702 | 1.27 | 1.09 | 1.81 | | | |
| Pennsylvania | 101,537 | 57,563 | 43,975 | 0.82 | 0.61 | 1.40 | | | |
| Rhode Island | 8.987 | 6.345 | 2.642 | 0.85 | 0.79 | 1.05 | | | |
| South Carolina | 48,729 | 28,999 | 19,730 | 1.20 | 0.96 | 1.88 | | | |
| | | | | | | 0.84 | | | |
| South Dakota | 4,251 | 2,532 | 1,719 | 0.56 | 0.46 | | | | |
| Tennessee | 70,850 | 42,669 | 28,180 | 1.23 | 0.98 | 1.94 | | | |
| Texas | 373,567 | 266,803 | 106,764 | 1.76 | 1.75 | 1.79 | | | |
| Utah | 30,560 | 18,662 | 11,899 | 1.35 | 1.22 | 1.62 | | | |
| Vermont | 9,334 | 5,362 | 3,972 | 1.51 | 1.15 | 2.58 | | | |
| Virginia | 95,413 | 64,613 | 30,800 | 1.33 | 1.20 | 1.74 | | | |
| Washington | 84,296 | 55,664 | 28,632 | 1.41 | 1.25 | 1.8 | | | |
| West Virginia | 21,778 | 15,218 | 6,561 | 1.19 | 1.07 | 1.58 | | | |
| Wisconsin | 37,810 | 22,629 | 15,182 | 0.70 | 0.56 | 1.10 | | | |
| Wyoming | 7.825 | 5.327 | 2,499 | 1.56 | 1.44 | 1.9 | | | |

Source: Dr. Eugene Ericksen, Estimates of State and County Undercount Rates, May 1, 2001.

²PricewaterhouseCoopers calculations based on undercount rates provided by Dr. Ericksen.

³Undercount as a percent of adjusted population. U.S. Census Bureau and Dr. Eugene Ericksen, *Estimates of State and County* Undercount Rates, May 1, 2001.



Appendix B. Year 2000 Census Undercount by County

| | 2000 Populatio | n Projection | Estimated Ur | idercount |
|----------------------------------|--------------------|--------------------|---------------------|-------------------|
| State, County | Unadjusted | Adjusted | 3 | 4 |
| , | Count ¹ | Count ² | Number ³ | Rate ⁴ |
| Total, All 112 Selected Counties | 125,460,358 | 127,081,879 | 1,621,521 | 1.28 |
| Alabama | 4,447,100 | 4,500,658 | 53,558 | 1.19 |
| Jefferson County | 662,047 | 672,565 | 10,518 | 1.56 |
| Arizona | 5,130,632 | 5,205,064 | 74,432 | 1.43 |
| Maricopa County | 3,072,149 | 3,109,081 | 36,932 | 1.19 |
| Pima County | 843,746 | 854,259 | 10,513 | 1.23 |
| California | 33,871,648 | 34,394,444 | 522,796 | 1.52 |
| Alameda County | 1,443,741 | 1,463,267 | 19,526 | 1.33 |
| Contra Costa County | 948,816 | 957,328 | 8,512 | 0.89 |
| Fresno County | 799,407 | 812,347 | 12,940 | 1.59 |
| Kern County | 661,645 | 670,843 | 9,198 | 1.37 |
| Los Angeles County | 9,519,338 | 9,694,716 | 175,378 | 1.81 |
| Orange County | 2,846,289 | 2,881,546 | 35,257 | 1.22 |
| Riverside County | 1,545,387 | 1,563,399 | 18,012 | 1.15 |
| Sacramento County | 1,223,499 | 1,236,842 | 13,343 | 1.08 |
| San Bernardino County | 1,709,434 | 1,732,375 | 22,941 | 1.32 |
| San Diego County | 2,813,833 | 2,850,103 | 36,270 | 1.27 |
| San Francisco County | 776,733 | 788,191 | 11,458 | 1.45 |
| San Joaquin County | 563,598 | 571,318 | 7,720 | 1.35 |
| San Mateo County | 707,161 | 714,694 | 7,533 | 1.05 |
| Santa Clara County | 1,682,585 | 1,702,011 | 19,426 | 1.14 |
| Ventura County | 753,197 | 761,381 | 8,184 | 1.07 |
| Colorado | 4,301,261 | 4,356,148 | 54,887 | 1.26 |
| Denver County | 554,636 | 563,619 | 8,983 | 1.59 |
| El Paso County | 516,929 | 521,732 | 4,803 | 0.92 |
| Jefferson County | 527,056 | 529,927 | 2,871 | 0.54 |
| Connecticut | 3,405,565 | 3,438,923 | 33,358 | 0.97 |
| Fairfield County | 882,567 | 891,041 | 8,474 | 0.95 |
| Hartford County | 857,183 | 866,052 | 8,869 | 1.02 |
| New Haven County | 824,008 | 831,688 | 7,680 | 0.92 |
| Delaware | 783,600 | 795,533 | 11,933 | 1.50 |
| New Castle County | 500,265 | 507,573 | 7,308 | 1.44 |
| Florida | 15,982,378 | 16,183,048 | 200,670 | 1.24 |
| Broward County | 1,623,018 | 1,642,842 | 19,824 | 1.21 |
| Miami-Dade County | 2,253,362 | 2,297,091 | 43,729 | 1.90 |
| Duval County | 778,879 | 787,957 | 9,078 | 1.15 |
| Hillsborough County | 998,948 | 1,010,386 | 11,438 | 1.13 |
| Orange County | 896,344 | 907,877 | 11,533 | 1.27 |
| Palm Beach County | 1,131,184 | 1,142,954 | 11,770 | 1.03 |
| Pinellas County | 921,482 | 929,008 | 7,526 | 0.81 |
| Georgia | 8,186,453 | 8,309,433 | 122,980 | 1.48 |
| Cobb County | 607,751 | 616,952 | 9,201 | 1.49 |
| DeKalb County | 665,865 | 680,465 | 14,600 | 2.15 |
| Fulton County | 816,006 | 833,051 | 17,045 | 2.05 |
| Gwinnett County | 588,448 | 596,806 | 8,358 | 1.40 |

Appendix B. Year 2000 Census Undercount by County, continued

| | 2000 Populatio | n Projection | Estimated 1 | Undercount | |
|------------------------------------------------|--------------------|--------------------|---------------------|-------------------|--|
| State, County | Unadjusted | Adjusted | | 4 | |
| | Count ¹ | Count ² | Number ³ | Rate ⁴ | |
| Hawaii | 1,211,537 | 1,238,284 | 26,747 | 2.16 | |
| Honolulu County | 876,156 | 894,559 | 18,403 | 2.06 | |
| Illinois | 12,419,293 | 12,527,025 | 107,732 | 0.86 | |
| Cook County | 5,376,741 | 5,453,560 | 76,819 | 1.41 | |
| DuPage County | 904,161 | 907,141 | 2,980 | 0.33 | |
| Lake County | 644,356 | 647,892 | 3,536 | 0.55 | |
| Will County | 502,266 | 503,952 | 1,686 | 0.33 | |
| Indiana | 6,080,485 | 6,127,668 | 47,183 | 0.77 | |
| Marion County | 860,454 | 868,891 | 8,437 | 0.97 | |
| Kentucky | 4,041,769 | 4,092,102 | 50,333 | 1.23 | |
| Jefferson County | 693,604 | 701,961 | 8,357 | 1.19 | |
| Maryland | 5,296,486 | 5,371,690 | 75,204 | 1.40 | |
| Baltimore City ⁵ | 651,154 | 664,993 | 13,839 | 2.08 | |
| Baltimore County | 754,292 | 763,672 | 9,380 | 1.23 | |
| Montgomery County | 873,341 | 885,453 | 12,112 | 1.37 | |
| Prince George's County | 801,515 | 817,093 | 15,578 | 1.91 | |
| Massachusetts | 6,349,097 | 6,397,720 | 48,623 | 0.76 | |
| Bristol County | 534,678 | 537,658 | 2,980 | 0.55 | |
| Essex County | 723,419 | 728,856 | 5,437 | 0.75 | |
| Middlesex County | 1,465,396 | 1,474,743 | 9,347 | 0.63 | |
| Norfolk County | 650,308 | 653,016 | 2,708 | 0.41 | |
| Suffolk County | 689,807 | 701,348 | 11,541 | 1.65 | |
| Worcester County | 750,963 | 755,887 | 4,924 | 0.65 | |
| Michigan | 9,938,444 | 10,009,512 | 71,068 | 0.71 | |
| Kent County | 574,335 | 577,662 | 3,327 | 0.58 | |
| Macomb County | 788,149 | 790,664 | 2,515 | 0.32 | |
| Oakland County | 1,194,156 | 1,200,981 | 6,825 | 0.57 | |
| Wayne County | 2,061,162 | 2,091,394 | 30,232 | 1.45 | |
| Minnesota | 4,919,479 | 4,933,787 | 14,308 | 0.29 | |
| Hennepin County | 1,116,200 | 1,123,958 | 7,758 | 0.69 | |
| Ramsey County | 511,035 | 513,913 | 2,878 | 0.56 | |
| Missouri | 5,595,211 | 5,621,068 | 25,857 | 0.46 | |
| Jackson County | 654,880 | 661,305 | 6,425 | 0.97 | |
| St. Louis County | 1,016,315 | 1,022,272 | 5,957 | 0.58 | |
| Nevada | 1,998,257 | 2,032,401 | 34,144 | 1.68 | |
| Clark County | 1,375,765 | 1,396,215 | 20,450 | 1.46 | |
| New Jersey | 8,414,350 | 8,512,241 | 97,891 | 1.15 | |
| Bergen County | 884,118 | 892,354 | 8,236 | 0.92 | |
| Camden County | 508,932 | 513,949 | 5,017 | 0.98 | |
| Essex County | 793,633 | 808,624 | 14,991 | 1.85 | |
| Hudson County | 608,975 | 622,595 | 13,620 | 2.19 | |
| Middlesex County | 750,162 | 758,371 | 8,209 | 1.08 | |
| Monmouth County | 615,301 | 620,014 | 4,713 | 0.76 | |
| Ocean County | 510,916 522,541 | 514,011 | 3,095 | 0.60 | |
| Union County Footnotes appear at and of table | 322,341 | 529,612 | 7,071 | 1.34 | |

Appendix B. Year 2000 Census Undercount by County, continued

| | 2000 Population | on Projection | Estimated 1 | Indercount |
|------------------------------|--------------------|--------------------|---------------------|-------------------|
| State, County | Unadjusted | Adjusted | 3 | 4 |
| | Count ¹ | Count ² | Number ³ | Rate ⁴ |
| New Mexico | 1,819,046 | 1,855,034 | 35,988 | 1.94 |
| Bernalillo County | 556,678 | 564,539 | 7,861 | 1.39 |
| New York | 18,976,457 | 19,185,580 | 209,123 | 1.09 |
| Bronx County | 1,332,650 | 1,369,358 | 36,708 | 2.68 |
| Erie County | 950,265 | 955,016 | 4,751 | 0.50 |
| Kings County | 2,465,326 | 2,508,872 | 43,546 | 1.74 |
| Monroe County | 735,343 | 739,316 | 3,973 | 0.54 |
| Nassau County | 1,334,544 | 1,332,925 | -1,619 | -0.12 |
| New York County | 1,537,195 | 1,567,060 | 29,865 | 1.91 |
| Queens County | 2,229,379 | 2,257,703 | 28,324 | 1.25 |
| Richmond County ⁶ | 443,728 | 445,203 | 1,475 | 0.33 |
| Suffolk County | 1,419,369 | 1,416,194 | -3,175 | -0.22 |
| Westchester County | 923,459 | 928,775 | 5,316 | 0.57 |
| North Carolina | 8,049,313 | 8,160,293 | 110,980 | 1.36 |
| Mecklenburg County | 695,454 | 707,386 | 11,932 | 1.69 |
| Wake County | 627,846 | 637,077 | 9,231 | 1.45 |
| Ohio | 11,353,140 | 11,418,224 | 65,084 | 0.57 |
| Cuyahoga County | 1,393,978 | 1,407,137 | 13,159 | 0.94 |
| Franklin County | 1,068,978 | 1,077,965 | 8,987 | 0.83 |
| Hamilton County | 845,303 | 852,737 | 7,434 | 0.87 |
| Montgomery County | 559,062 | 563,089 | 4,027 | 0.72 |
| Summit County | 542,899 | 545,497 | 2,598 | 0.48 |
| Oklahoma | 3,450,654 | 3,499,649 | 48,995 | 1.40 |
| Oklahoma County | 660,448 | 671,690 | 11,242 | 1.67 |
| Tulsa County | 563,299 | 571,988 | 8,689 | 1.52 |
| Oregon | 3,421,399 | 3,465,410 | 44,011 | 1.27 |
| Multnomah County | 660,486 | 666,731 | 6,245 | 0.94 |
| Pennsylvania | 12,281,054 | 12,382,591 | 101,537 | 0.82 |
| Allegheny County | 1,281,666 | 1,287,406 | 5,740 | 0.45 |
| Bucks County | 597,635 | 600,363 | 2,728 | 0.45 |
| Delaware County | 550,864 | 554,354 | 3,490 | 0.63 |
| Montgomery County | 750,097 | 754,000 | 3,903 | 0.52 |
| Philadelphia County | 1,517,550 | 1,536,930 | 19,380 | 1.26 |
| Rhode Island | 1,048,319 | 1,057,306 | 8,987 | 0.85 |
| Providence County | 621,602 | 625,596 | 3,994 | 0.64 |
| Tennessee | 5,689,283 | 5,760,133 | 70,850 | 1.23 |
| Davidson County | 569,891 | 578,765 | 8,874 | 1.53 |
| Shelby County | 897,472 | 912,769 | 15,297 | 1.68 |
| Texas | 20,851,820 | 21,225,387 | 373,567 | 1.52 |
| Bexar County | 1,392,931 | 1,419,991 | 27,060 | 1.33 |
| Dallas County | 2,218,899 | 2,266,128 | 47,229 | 0.89 |
| El Paso County | 679,622 | 693,922 | 14,300 | 1.59 |
| Harris County | 3,400,578 | 3,472,170 | 71,592 | 1.37 |
| Hidalgo County | 569,463 | 583,365 | 13,902 | 1.81 |
| Tarrant County | 1,446,219 | 1,470,880 | 24,661 | 1.22 |
| Travis County | 812,280 | 828,012 | 15,732 | 1.15 |

Appendix B. Year 2000 Census Undercount by County, continued

| | 2000 Population | n Projection | Estimated Undercount | | |
|------------------|----------------------------------|--------------------------------|----------------------|-------------------|--|
| State, County | Unadjusted Count ¹ | Adjusted Count ² | Number ³ | Rate ⁴ | |
| Utah | 2,233,169 | 2,263,729 | 30,560 | 1.35 | |
| Salt Lake County | 898,387 | 907,947 | 9,560 | 1.05 | |
| Virginia | 7,078,515 | 7,173,928 | 95,413 | 1.33 | |
| Fairfax County | 969,749 | 981,909 | 12,160 | 1.24 | |
| Washington | 5,894,121 | 5,978,417 | 84,296 | 1.41 | |
| King County | 1,737,034 | 1,757,102 | 20,068 | 1.14 | |
| Pierce County | 700,820 | 709,038 | 8,218 | 1.16 | |
| Snohomish County | 606,024 | 611,706 | 5,682 | 0.93 | |
| Wisconsin | 5,363,675 | 5,401,485 | 37,810 | 0.70 | |
| Milwaukee County | 940,164 | 951,412 | 11,248 | 1.18 | |

¹Source: U.S. Census Bureau, Census 2000 Redistricting Data (P.L. 94-171) Summary File, Table 1.

²Equals unadjusted population count plus undercount.

³Equals adjusted minus unadjusted 2000 population projections.

⁴Undercount as a percent of adjusted population. U.S. Census Bureau and Dr. Eugene Ericksen, *Estimates of State and County Undercount Rates*, May 1, 2001.

⁵Baltimore City is an independent city (i.e., it is independent of any county organization).

⁶Richmond County is included in order to comprise the 5 counties of New York City.



Federal Program Descriptions

The federal programs analyzed in the report are summarized below. Additional information, such as the formulas used to allocate funds to states, is available from the General Accounting Office report.¹ The total effect on the eight federal programs analyzed appears in Table D-1 in Appendix D.

1. Adoption Assistance

The Adoption Assistance program supports the adoption of children with special needs. Specifically, the program provides maintenance payments to the families adopting the qualifying children, payments to state agencies for the administrative costs involved with placing the children in adoptive homes, and payments for training professional staff and parents involved in the adoptions. States determine which children qualify for the assistance; in general, children with special circumstances that make their adoption less likely, such as a mental or physical handicap, are eligible for the program.

The federal government provides a specified percentage of the payments made to the qualifying families, and states provide the remainder. Administrative and training expenses are matched at the same rate in all states (50 percent and 75 percent, respectively). The federal government reimburses maintenance payments based on a state-specific percentage that depends on each state's per capita income. This percentage, the Federal medical assistance percentage (FMAP), ranges from 50 percent to 83 percent and also determines reimbursement rates under the Medicaid program.

To calculate the effect of the 2000 undercount on the Adoption Assistance funding received by each state, the FMAP for each state was calculated using adjusted and unadjusted per capita income, which relied on adjusted and unadjusted population counts. Adjusted and unadjusted funding levels by state were produced by calculating the product of the FMAP (adjusted or unadjusted) and the maintenance payments.² Table D-2 in Appendix D summarizes the estimated effect of the Census 2000 undercount on this program.

¹ General Accounting Office, *Formula Grants: Effects of Adjusted Population Counts on Federal Funding to States*, GAO/HEHS-99-69, February 1999. The formula used to allocate the Vocational Education differs slightly from that presented in the GAO report. See the listing for the program in the *Catalog of Federal Domestic Assistance* (CFDA# 84.048).

² Administrative and training expenses would not be affected by the undercount since those expenses are matched at rates that do not depend on population counts.

2. Child Care and Development Fund Discretionary Funds (formerly the Child Care and Development Block Grant)

This program provides funding to assist low-income families with child care and to improve the availability and quality of child care. States establish programs with the funds subject to certain Federal restrictions. For instance, to qualify for services under the program, children must be from families that earn less than 85 percent of the state median income.

The program allocates funding amounts to states based on a formula that includes the state population under 5 years old, the number of children qualifying for the School Lunch program, and the state per capita income. To calculate the effect of the 2000 undercount on the funding received by each state, adjusted and unadjusted population (under 5 and overall) figures were used in the formula to calculate adjusted and unadjusted state shares. Multiplying these shares by the total funding level for the program yielded the adjusted and unadjusted state funding levels. Table D-3 in Appendix D summarizes the estimated effect of the Census 2000 undercount on this program.

3. Foster Care

The Foster Care program supports families and facilities that provide homes to needy foster children. The program provides funding for maintenance payments to the homes hosting the children, payments to the state agencies for administrative costs, and payments to state and local agencies for training expenses. Any foster child that would have qualified for the Aid to Families with Dependent Children (AFDC) program, as in effect in 1995, qualifies for Foster Care payments, which are made to the foster care family home, private child care facility, or public child care institution (with more than 25 people). The maintenance payments are intended to cover the costs associated with raising a child, such as expenses for food, shelter, and supervision.

Similar to the Adoption Assistance program, administrative and training expenses are matched at the same rate in all states (50 percent and 75 percent, respectively). The federal government reimburses maintenance payments based on the FMAP.

To calculate the effect of the 2000 undercount on the Foster Care funding received by each state, the FMAP for each state was calculated using adjusted and unadjusted per capita income, which relied on adjusted and unadjusted population counts. Adjusted and unadjusted funding levels by state were produced by calculating the product of the FMAP (adjusted or unadjusted) and the maintenance payments. Table D-4 in Appendix D summarizes the estimated effect of the Census 2000 undercount on this program.

4. Medicaid

The Medicaid program provides medical assistance to certain low-income individuals. States design and administer their own programs, subject to Federal regulations, and receive reimbursements from the Federal government for their expenses. In general, low-income children and pregnant women, adults in families with dependent children, low-income persons with disabilities, and low-income elderly persons qualify for the program. The program covers expenses for medical assistance such as inpatient and outpatient hospital care, laboratory and x-ray services, and physician services.

Administrative expenses, amounts for family planning, and amounts paid to Indian Health Services facilities are matched at the same rate in all states (50 percent, 90 percent, and 75 percent, respectively). Medical assistance payments (i.e., payments for care) are matched based on the FMAP.

To calculate the effect of the 2000 undercount on the Foster Care funding received by each state, the FMAP for each state was calculated using adjusted and unadjusted per capita income, which relied on adjusted and unadjusted population counts. Adjusted and unadjusted funding levels by state were produced by calculating the product of the FMAP (adjusted or unadjusted) and the medical assistance payments. Table D-5 in Appendix D summarizes the estimated effect of the Census 2000 undercount on this program.

5. Rehabilitation Services. Basic Grants

This program provides vocational rehabilitation to disabled individuals and their families. Specifically, individuals with physical or mental impairments receive services such as reader services for the blind, interpreter services for the deaf, prosthetic devices, job placement, and transportation to vocational rehabilitation facilities. States administer independent programs, subject to Federal guidelines, and receive grants annually from the Federal government.

The program allocates funding to states based on a formula that considers the amount received by the state in 1978, state population, and per capita income. To calculate the effect of the 2000 undercount, state shares were calculated using adjusted and unadjusted state and national population figures. Adjusted and unadjusted state funding levels were calculated by multiplying the state shares (adjusted and unadjusted) by the total funding for the program. States are guaranteed to receive at least one-third of one percent of the total appropriation; state funding levels (adjusted and unadjusted) were adjusted to conform to this restriction. Table D-6 in Appendix D summarizes the estimated effect of the Census 2000 undercount on this program.

6. Social Services Block Grant

This program provides grants to states for providing social services. States determine the use of the funds at their own discretion but must use the funds towards one of five goals: (1) to prevent, reduce, or eliminate dependency; (2) to achieve or maintain self-sufficiency; (3) to prevent neglect, abuse, or exploitation of children and adults; (4) to prevent or reduce inappropriate institutional care; and (5) to secure admission or referral for institutional care when other forms of care are inappropriate.³ In the past, states have used the funds for child day care, protective and emergency services for children and adults, adoption, foster care, and counseling.

States receive allotments under the program based on a formula that relies on the state's share of the national population. To calculate the effect of the 2000 undercount, state shares were calculated using adjusted and unadjusted state and national population figures. Adjusted and unadjusted state funding levels were calculated by multiplying the state shares (adjusted and unadjusted) by the total funding for the program. Table D-7 in Appendix D summarizes the estimated effect of the Census 2000 undercount on this program.

7. Substance Abuse Prevention and Treatment Block Grant

This program provides grants to states for the prevention and treatment of drug and alcohol abuse. Subject to certain federal restrictions, states design and implement programs to reduce drug and alcohol abuse and provide rehabilitation to individuals with drug and alcohol problems.

States receive allocations under the program based on a formula that depends on the population aged 18 to 24, population aged 25 to 64, urban population aged 18 to 24, per capita income, and a cost index. The cost index, which is recalculated every three years, consists of a wage component and a measure of average rental prices for housing.

To calculate the effect of the 2000 undercount, state shares were calculated using adjusted and unadjusted state and national population figures (the cost index and urban share of population were assumed to remain constant). Adjusted and unadjusted state funding levels were calculated by multiplying the state shares (adjusted and unadjusted) by the total funding for the program. After the calculation of these funding levels, additional adjustments were made to guarantee that each state received a minimum share of the increase in the national funding level and a minimum share of the national funding level, as is standard practice under current

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³ As described in the *Catalog of Federal Domestic Assistance* (CFDA), General Services Administration

law.⁴ Table D-8 in Appendix D summarizes the estimated effect of the Census 2000 undercount on this program.

8. Vocational Education

This program provides grants to states for vocational education programs for youths and adults. State programs offer courses to prepare individuals for employment in occupations not requiring a baccalaureate or an advanced degree. States use the funds provided by this program for a variety of activities, including purchasing occupationally-relevant equipment and curriculum materials, providing career counseling and guidance, hiring staff, and offering remedial classes.

The formula used to allot the funding amount to states depends on the population aged 15 to 19, population aged 20 to 24, population aged 25 to 65, and per capita income. To calculate the effect of the 2000 undercount, state shares were calculated using adjusted and unadjusted state and national population figures. Adjusted and unadjusted state funding levels were calculated by multiplying the state shares (adjusted and unadjusted) by the total funding for the program. Current law contains a "hold-harmless" provision to guarantee that the amount a state receives in the current year always exceeds the amount received in the prior year (assuming the national funding level rises). State funding levels were adjusted to ensure that this provision was satisfied. Table D-9 in Appendix D summarizes the estimated effect of the Census 2000 undercount on this program.

⁴ Specifically, the guaranteed increases used for 1999 funding levels have been used for future years. The actual rules governing minimum increases and shares of the national total have varied by year; we have assumed the 1999 rules continue to apply since newer rules are unavailable.



Table D-1. Estimated Funding Effect of Census 2000 Undercount by State on Eight Federal Programs, FY 2002-2012 [Fiscal years; thousands of dollars]

| State | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2002-2012 |
|----------------------|---------|----------|----------|----------|----------|----------|------------|
| Alabama | -112 | -341 | -367 | -396 | -426 | -459 | -4,85 |
| Alaska | -293 | -7,321 | -7,945 | -8,633 | -9,363 | -10,157 | -108,45 |
| Arizona | -476 | -5,317 | -5,745 | -6,216 | -6,715 | -7,258 | -77,20 |
| Arkansas | -116 | -1,172 | -1,268 | -1,373 | -1,484 | -1,606 | -17,08 |
| California | -3,823 | -102,112 | -110,676 | -120,163 | -130,220 | -141,153 | -1,506,19 |
| Colorado | -100 | -132 | -135 | -138 | -141 | -143 | -1,429 |
| Connecticut | 184 | 245 | 249 | 254 | 259 | 264 | 2,63 |
| Delaware | -88 | -90 | -92 | -93 | -95 | -97 | -963 |
| District of Columbia | -106 | -108 | -110 | -111 | -113 | -115 | -1,14 |
| Florida | -488 | -6,247 | -6,766 | -7,337 | -7,942 | -8,600 | -91,64 |
| Georgia | -1,056 | -14,265 | -15,441 | -16,735 | -18,105 | -19,598 | -208,754 |
| Hawaii | -399 | -7,180 | -7,778 | -8,437 | -9,136 | -9,896 | -105,510 |
| Idaho | -198 | -2,612 | -2,826 | -3,062 | -3,311 | -3,582 | -38,14 |
| Illinois | 1,594 | 1,954 | 1,994 | 2,035 | 2,075 | 2,117 | 21,078 |
| Indiana | 971 | 15,518 | 16,804 | 18,220 | 19,720 | 21,354 | 227,572 |
| Iowa | 832 | 12,098 | 13,093 | 14,192 | 15,356 | 16,623 | 177,083 |
| Kansas | 583 | 8,653 | 9,366 | 10,153 | 10,986 | 11,893 | 126,708 |
| Kentucky | -122 | -1,314 | -1,423 | -1,543 | -1,669 | -1,808 | -19,253 |
| Louisiana | -348 | -4,684 | -5,075 | -5,504 | -5,959 | -6,455 | -68,794 |
| Maine | -89 | -1,862 | -2,020 | -2,194 | -2,378 | -2,578 | -27,510 |
| Maryland | -406 | -514 | -525 | -535 | -546 | -557 | -5,54: |
| Massachusetts | 744 | 953 | 971 | 991 | 1,010 | 1,029 | 10,258 |
| Michigan | 1,806 | 34,757 | 37,655 | 40,858 | 44,253 | 47,945 | 511,279 |
| Minnesota | 1,520 | 1,904 | 1,942 | 1,982 | 2,021 | 2,062 | 20,533 |
| Mississippi | -113 | -857 | -927 | -1,004 | -1,085 | -1,174 | -12,48 |
| Missouri | 1,570 | 35,315 | 38,302 | 41,589 | 45,072 | 48,867 | 521,480 |
| Montana | -110 | -1,454 | -1,575 | -1,708 | -1,848 | -2,001 | -21,320 |
| Nebraska | 431 | 7,579 | 8,212 | 8,908 | 9,647 | 10,450 | 111,424 |
| Nevada | -318 | -425 | -434 | -443 | -451 | -461 | -4,59 |
| New Hampshire | 7 | 7 | 8 | 8 | 8 | 8 | 79 |
| New Jersey | 162 | 136 | 139 | 142 | 144 | 147 | 1,45 |
| New Mexico | -394 | -7,475 | -8,100 | -8,787 | -9,516 | -10,309 | -109,930 |
| New York | 666 | 850 | 867 | 885 | 903 | 921 | 9,173 |
| North Carolina | -660 | -11,064 | -11,992 | -13,013 | -14,094 | -15,273 | -162,873 |
| North Dakota | 122 | 2,164 | 2,347 | 2,547 | 2,760 | 2,992 | 31,91 |
| Ohio | 2,539 | 54,039 | 58,567 | 63,566 | 68,864 | 74,629 | 796,07 |
| Oklahoma | -360 | -3,439 | -3,717 | -4,023 | -4,347 | -4,700 | -49,990 |
| Oregon | -143 | -2,285 | -2,476 | -2,687 | -2,910 | -3,153 | -33,62 |
| Pennsylvania | 1,446 | 45,229 | 49,075 | 53,322 | 57,823 | 62,723 | 669,759 |
| Rhode Island | 104 | 4,765 | 5,179 | 5,634 | 6,117 | 6,643 | 71,01 |
| South Carolina | -94 | -629 | -681 | -738 | -798 | -863 | -9,183 |
| South Dakota | 173 | 2,096 | 2,269 | 2,459 | 2,661 | 2,880 | 30,678 |
| Tennessee | -216 | -2,636 | -2,857 | -3,100 | -3,357 | -3,638 | -38,77 |
| Texas | -4,648 | -69,361 | -75,070 | -81,350 | -88,002 | -95,247 | -1,014,599 |
| Utah | -111 | -1,202 | -1,299 | -1,404 | -1,517 | -1,639 | -17,42 |
| Vermont | -73 | -1,816 | -1,971 | -2,141 | -2,322 | -2,519 | -26,894 |
| Virginia | -391 | -5,974 | -6,468 | -7,011 | -7,588 | -8,215 | -87,539 |
| Washington | -517 | -12,489 | -13,549 | -14,715 | -15,952 | -17,299 | -184,65 |
| West Virginia | -2 | -139 | -151 | -164 | -179 | -194 | -2,076 |
| Wisconsin | 974 | 17,143 | 18,570 | 20,143 | 21,810 | 23,624 | 251,858 |
| Wyoming | -58 | -812 | -879 | -954 | -1,032 | -1,118 | -11,920 |
| Total, United States | 0 | -31,924 | -34,726 | -37,826 | -41,114 | -44,693 | -478,29 |
| Funding Gains | 16,436 | 245,656 | 265,865 | 288,148 | 311,756 | 319,336 | 3,594,84 |
| Funding Losses | -16,436 | -277,580 | -300,591 | -325,974 | -352,870 | -364,028 | -4,073,14 |

Source: PricewaterhouseCoopers calculations.

Table D-2. Estimated Funding Effect of Census 2000 Undercount by State: Adoption Assistance,

| State | 2003 | 2004 | 2005 | 2006 | 2007 | 2003-2007 | 2003-2012 |
|--------------------------|-----------|-----------|----------|-----------|--------|-----------|-----------|
| Alabama | _* | _* | _* | _* | _* | -1 | -3 |
| Alaska | -129 | -138 | -150 | -162 | -175 | -755 | -1,864 |
| Arizona | -54 | -58 | -63 | -68 | -74 | -317 | -784 |
| Arkansas | -6 | -7 | -7 | -8 | -9 | -38 | -93 |
| California | -1,200 | -1,281 | -1,390 | -1,507 | -1,626 | -7,005 | -17,299 |
| Colorado | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Connecticut | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Delaware | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| District of Columbia | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Florida | -24 | -25 | -27 | -30 | -32 | -138 | -342 |
| Georgia | -88 | -93 | -101 | -110 | -119 | -511 | -1,262 |
| Hawaii | -63 | -67 | -73 | -79 | -85 | -366 | -905 |
| Idaho | -7 | -7 | -8 | -8 | -9 | -39 | -96 |
| Illinois | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Indiana | 119 | 128 | 138 | 150 | 162 | 697 | 1,722 |
| Iowa | 178 | 190 | 206 | 224 | 241 | 1,039 | 2,567 |
| Kansas | 35 | 37 | 40 | 44 | 47 | 203 | 502 |
| Kentucky | -3 | -4 | -4 | -4 | -5 | -20 | -49 |
| Louisiana | -14 | -15 | -16 | -17 | -19 | -80 | -197 |
| Maine | -12 | -12 | -14 | -15 | -16 | -68 | -168 |
| Maryland | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Massachusetts | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Michigan | 729 | 779 | 845 | 916 | 989 | 4,258 | 10,515 |
| Minnesota | 0 | 0 | 0 | 0 | 0 | 0 | 10,515 |
| Mississippi | -2 | -2 | -2 | -2 | -2 | -10 | -26 |
| Missouri | 132 | 141 | 153 | 166 | 179 | 772 | 1,906 |
| Montana | -7 | -7 | -8 | -8 | -9 | -38 | -94 |
| Nebraska | 48 | 51 | -6 56 | 60 | 65 | 281 | 694 |
| Nevada | 0 | 0 | 0 | 0 | 0 | 0 | 094 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Hampshire | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Jersey New Mexico | -52 | -55 | -60 | -65 | -70 | -303 | -748 |
| New York | -32 | -55 | -60 | -03 | -70 | -303 | -/48 |
| North Carolina | -43 | -45 | -49 | -53 | -58 | -248 | -613 |
| | | | | | | | |
| North Dakota Ohio | 10 457 | 11 488 | 530 | 12 574 | 13 | 2,669 | 142 |
| | | | | | 620 | , | 6,592 |
| Oklahoma | -16 | -17 | -19 | -20 | -22 | -94 | -232 |
| Oregon | -22 | -23 | -25 | -28 | -30 | -128 | -316 |
| Pennsylvania | 203 | 216 | 235 | 255 | 275 | 1,183 | 2,922 |
| Rhode Island | 37 | 39 | 43 | 46 | 50 | 214 | 529 |
| South Carolina | -2 | -2 | -3 | -3 | -3 | -14 | -33 |
| South Dakota | 11 | 11 | 12 | 14 | 15 | 63 | 155 |
| Tennessee | -4 | -5 262 | -5 | -6 | -6 | -26 | -63 |
| Texas | -340 | -363 | -394 | -427 | -461 | -1,987 | -4,906 |
| Utah | -8 | -8 | -9 | -10 | -10 | -44 | -109 |
| Vermont | -19 | -21 | -22 | -24 | -26 | -113 | -280 |
| Virginia | -28 | -30 | -33 | -35 | -38 | -164 | -406 |
| Washington | -85 | -91 | -99 | -107 | -115 | -497 | -1,226 |
| West Virginia | _* | _* | -1 | -1 | -1 | -3 | -7 |
| Wisconsin | 178 | 190 | 206 | 223 | 241 | 1,038 | 2,563 |
| Wyoming | -2 | -2 | -2 | -3 | -3 | -12 | -30 |
| Total, United States | -93 | -99 | -108 | -117 | -126 | -543 | -1,340 |
| Funding Gains | 2,137 | 2,282 | 2,476 | 2,684 | 2,897 | 12,476 | 30,810 |
| Funding Losses | -2,230 | -2,381 | -2,584 | -2,800 | -3,023 | -13,018 | -32,150 |

Source: PricewaterhouseCoopers calculations.

Note: An asterisk (*) denotes a positive shift of less than \$500. A negative asterisk (-*) denotes a negative shift of less than \$500.

States with zeros would have identical reimbursement rates using unadjusted or adjusted population counts. See footnote 12 in main report.

Table D-3. Estimated Funding Effect of Census 2000 Undercount by State: Child Care and Development Block Grant. FY 2002-2012 [Fiscal years: thousands of dollars]

| State | 2002 | 2003 | 2004 | 2005 | 2006 | 2002-2006 | 2002-2011 |
|------------------------|-------------|-------------|-------------|-----------|---------------------------------------|--------------|------------------|
| Alabama | -63 | -64 | -65 | -67 | -68 | -327 | -691 |
| Alaska | -95 | -97 | -100 | -102 | -104 | -498 | -1,050 |
| Arizona | -133 | -136 | -139 | -142 | -144 | -693 | -1,462 |
| Arkansas | -33 | -34 | -34 | -35 | -36 | -171 | -361 |
| California | -766 | -782 | -798 | -815 | -832 | -3,993 | -8,422 |
| Colorado | -12 | -12 | -13 | -13 | -13 | -64 | -134 |
| Connecticut | 35 | 36 | 36 | 37 | 38 | 181 | 383 |
| Delaware | -24 | -24 | -25 | -25 | -26 | -125 | -263 |
| District of Columbia | -18 | -18 | -18 | -19 | -19 | -91 | -193 |
| Florida | -175 | -179 | -182 | -186 | -190 | -913 | -1,925 |
| Georgia | -345 | -353 | -360 | -368 | -375 | -1,800 | -3,798 |
| Hawaii | -148 | -152 | -155 | -158 | -161 | -774 | -1,634 |
| Idaho | -23 | -24 | -24 | -25 | -25 | -121 | -255 |
| Illinois | 477 | 487 | 497 | 508 | 518 | 2,487 | 5,245 |
| Indiana | 260 | 266 | 271 | 277 | 283 | 1,358 | 2,864 |
| Iowa | 230 | 235 | 240 | 245 | 250 | 1,200 | 2,530 |
| Kansas | 168 | 172 | 175 | 179 | 183 | 878 | 1,851 |
| Kentucky | -40 | -41 | -42 | -43 | -44 | -209 | -441 |
| Louisiana | -93 | -95 | -97 | -99 | -101 | -487 | -1,026 |
| Maine | -47 | -48 | -49 | -50 | -52 | -247 | -521 |
| Maryland | -90 | -92 | -94 | -96 | -98 | -472 | -995 |
| Massachusetts | 241 | 246 | 251 | 256 | 262 | 1,255 | 2,648 |
| Michigan | 467 | 477 | 487 | 497 | 508 | 2,437 | 5,140 |
| Minnesota | 392 | 400 | 409 | 417 | 426 | 2,043 | 4,311 |
| Mississippi | -44 | -45 | -46 | -47 | -48 | -231 | -488 |
| Missouri | 428 | 437 | 446 | 456 | 465 | 2,233 | 4,710 |
| Montana | -11 | -11 | -12 | -12 | -12 | -58 | -123 |
| Nebraska | 122 | 125 | 128 | 130 | 133 | 638 | 1,346 |
| Nevada | -70 | -72 | -73 | -75 | -76 | -367 | -774 |
| New Hampshire | -4 | -5 | -5 | -5 | -5 | -23 | -49 |
| New Jersey | 87 | 88 | 90 | 92 | 94 | 451 | 952 |
| New Mexico | -39 | -40 | -41 | -42 | -43 | -205 | -432 |
| New York | 218 | 223 | 228 | 232 | 237 | 1,138 | 2,401 |
| North Carolina | -225 | -230 | -235 | -240 | -245 | -1,174 | -2,477 |
| North Dakota | 23 | 24 | 24 | 25 | 25 | 121 | 256 |
| Ohio | 600 | 613 | 625 | 639 | 652 | 3,129 | 6,600 |
| Oklahoma | -97 | - 99 | -101 | -103 | -105 | -505 | -1,066 |
| Oregon | -45 | -46 | -47 | -48 | -49 | -236 | -499 |
| Pennsylvania | 287 | 293 | 299 | 305 | 312 | 1,496 | 3,156 |
| Rhode Island | 36 | 36 | 37 | 38 | 39 | 186 | 392 |
| South Carolina | -45 | -46 | -47 | -48 | -49 | -234 | -494 |
| South Dakota | 62 | 63 | 65 | 66 | 67 | 324 | 683 |
| Tennessee | -98 | -100 | -103 | -105 | -107 | -513 | -1,082 |
| Texas | -1,317 | -1,345 | -1,373 | -1,402 | -1,431 | -6,869 | -14,489 |
| Utah | * | | | | · · · · · · · · · · · · · · · · · · · | | |
| Vermont | -3 -30 | -3 -31 | -3 -32 | -3 -32 | -3 -33 | -15 -159 | -33 -335 |
| | | | | -97 | -99 | | |
| Virginia Washington | -91 -128 | -93 -131 | -95 -134 | -137 | -139 | -476 -669 | -1,005 -1,411 |
| West Virginia | | | | | | | |
| 2 | 2 239 | 2 244 | 2 249 | 2 255 | 2 | 11 | 24 2,631 |
| Wisconsin Wyoming | -18 | -18 | -19 | -19 | 260 -19 | 1,247 -93 | -196 |
| Total, United States | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Funding Gains | 4,375 | 4,467 | 4,561 | 4,657 | 4,754 | 22,813 | 48,122 |
| Funding Losses | -4,375 | -4,467 | -4,561 | -4,657 | -4,754 | -22,813 | -48,122 |

Source: PricewaterhouseCoopers calculations.

Note: An asterisk (*) denotes a positive shift of less than \$500. A negative asterisk (-*) denotes a negative shift of less than \$500.

Table D-4. Estimated Funding Effect of Census 2000 Undercount by State: Foster Care, FY 2002-2012

[Fiscal years; thousands of dollars]

| State | 2003 | 2004 | 2005 | 2006 | 2007 | 2003-2007 | 2003-2012 |
|----------------------|--------|--------|--------|--------|--------|-----------|-----------|
| Alabama | _* | -1 | -1 | -1 | -1 | -3 | -7 |
| Alaska | -67 | -72 | -78 | -85 | -91 | -393 | -970 |
| Arizona | -74 | -80 | -86 | -94 | -101 | -435 | -1,074 |
| Arkansas | -8 | -8 | -9 | -10 | -11 | -45 | -112 |
| California | -4,072 | -4,349 | -4,719 | -5,114 | -5,520 | -23,773 | -58,710 |
| Colorado | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Connecticut | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Delaware | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| District of Columbia | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Florida | -63 | -67 | -73 | -79 | -85 | -367 | -907 |
| Georgia | -117 | -124 | -135 | -146 | -158 | -680 | -1,680 |
| Hawaii | -112 | -120 | -130 | -141 | -152 | -656 | -1,620 |
| Idaho | -5 | -6 | -6 | -7 | -7 | -31 | -77 |
| Illinois | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Indiana | 143 | 153 | 166 | 180 | 194 | 837 | 2,068 |
| Iowa | 219 | 233 | 253 | 274 | 296 | 1,276 | 3,151 |
| Kansas | 222 | 237 | 258 | 279 | 301 | 1,298 | 3,206 |
| Kentucky | -14 | -15 | -17 | -18 | -19 | -83 | -206 |
| Louisiana | -44 | -47 | -51 | -55 | -60 | -257 | -636 |
| Maine | -61 | -65 | -71 | -77 | -83 | -357 | -881 |
| Maryland | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Massachusetts | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Michigan | 609 | 651 | 706 | 765 | 826 | 3,558 | 8,787 |
| Minnesota | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mississippi | -2 | -2 | -2 | -2 | -2 | -10 | -25 |
| Missouri | 314 | 336 | 364 | 395 | 426 | 1,836 | 4,534 |
| Montana | -15 | -16 | -17 | -19 | -20 | -88 | -216 |
| Nebraska | 126 | 134 | 145 | 158 | 170 | 733 | 1,810 |
| Nevada | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Hampshire | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Jersey | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Mexico | -39 | -41 | -45 | -49 | -52 | -225 | -557 |
| New York | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Carolina | -107 | -115 | -124 | -135 | -145 | -626 | -1,547 |
| North Dakota | 34 | 37 | 40 | 43 | 47 | 200 | 495 |
| Ohio | 1,310 | 1,399 | 1,518 | 1,645 | 1,776 | 7,647 | 18,885 |
| Oklahoma | -43 | -46 | -49 | -54 | -58 | -249 | -615 |
| Oregon | -18 | -19 | -21 | -23 | -25 | -106 | -262 |
| Pennsylvania | 1,203 | 1,285 | 1,395 | 1,512 | 1,632 | 7,027 | 17,354 |
| Rhode Island | 32 | 34 | 37 | 40 | 43 | 185 | 457 |
| South Carolina | -2 | -2 | -3 | -3 | -3 | -13 | -32 |
| South Dakota | 21 | 23 | 25 | 27 | 29 | 124 | 307 |
| Tennessee | -10 | -11 | -12 | -13 | -14 | -61 | -151 |
| Texas | -596 | -636 | -690 | -748 | -808 | -3,478 | -8,589 |
| Utah | -6 | -6 | -7 | -8 | -8 | -35 | -87 |
| Vermont | -51 | -55 | -59 | -64 | -69 | -298 | -736 |
| Virginia | -83 | -88 | -96 | -104 | -112 | -482 | -1,191 |
| Washington | -83 | -89 | -97 | -105 | -113 | -486 | -1,201 |
| West Virginia | -1 | -2 | -2 | -2 | -2 | -9 | -21 |
| Wisconsin | 289 | 309 | 335 | 364 | 392 | 1,690 | 4,173 |
| Wyoming | -8 | -9 | -10 | -11 | -12 | -50 | -122 |
| Total, United States | -1,179 | -1,259 | -1,367 | -1,481 | -1,599 | -6,885 | -17,004 |
| Funding Gains | 4,524 | 4,831 | 5,243 | 5,682 | 6,133 | 26,412 | 65,228 |
| Funding Losses | -5,703 | -6,091 | -6,609 | -7,163 | -7,732 | -33,297 | -82,231 |

Source: PricewaterhouseCoopers calculations.

Note: An asterisk (*) denotes a positive shift of less than \$500. A negative asterisk (-*) denotes a negative shift of less than \$500.

States with zeros would have identical reimbursement rates using unadjusted or adjusted population counts. See footnote 12 in main report.

Table D-5. Estimated Funding Effect of Census 2000 Undercount by State: Medicaid, FY 2002-2012 [Fiscal

years; thousands of dollars]

| State | 2003 | 2004 | 2005 | 2006 | 2007 | 2003-2007 | 2003-2012 |
|----------------------|----------|----------|----------|----------|----------|------------|------------|
| Alabama | -282 | -307 | -335 | -364 | -395 | -1,683 | -4,233 |
| Alaska | -6,826 | -7,430 | -8,095 | -8,800 | -9,568 | -40,719 | -102,424 |
| Arizona | -4,594 | -5,001 | -5,448 | -5,922 | -6,440 | -27,404 | -68,932 |
| Arkansas | -1,043 | -1,135 | -1,237 | -1,344 | -1,462 | -6,221 | -15,649 |
| California | -91,356 | -99,449 | -108,343 | -117,773 | -128,062 | -544,984 | -1,370,847 |
| Colorado | 0 | 0 | 0 | 0 | 0 | 0 | C |
| Connecticut | 0 | 0 | 0 | 0 | 0 | 0 | C |
| Delaware | 0 | 0 | 0 | 0 | 0 | 0 | C |
| District of Columbia | 0 | 0 | 0 | 0 | 0 | 0 | C |
| Florida | -5,681 | -6,184 | -6,737 | -7,323 | -7,963 | -33,889 | -85,243 |
| Georgia | -12,836 | -13,973 | -15,223 | -16,548 | -17,994 | -76,573 | -192,612 |
| Hawaii | -6,504 | -7,080 | -7,713 | -8,385 | -9,117 | -38,798 | -97,593 |
| Idaho | -2,353 | -2,561 | -2,790 | -3,033 | -3,298 | -14,034 | -35,301 |
| Illinois | 0 | 0 | 0 | 0 | 0 | 0 | C |
| Indiana | 14,037 | 15,281 | 16,647 | 18,096 | 19,677 | 83,739 | 210,636 |
| Iowa | 10,702 | 11,650 | 12,692 | 13,797 | 15,002 | 63,842 | 160,588 |
| Kansas | 7,689 | 8,370 | 9,119 | 9,912 | 10,778 | 45,868 | 115,376 |
| Kentucky | -1,191 | -1,297 | -1,413 | -1,536 | -1,670 | -7,107 | -17,876 |
| Louisiana | -4,284 | -4,663 | -5,080 | -5,523 | -6,005 | -25,555 | -64,282 |
| Maine | -1,699 | -1,849 | -2,015 | -2,190 | -2,381 | -10,134 | -25,492 |
| Maryland | 0 | 0 | 0 | 0 | 0 | 0 | C |
| Massachusetts | 0 | 0 | 0 | 0 | 0 | 0 | C |
| Michigan | 31,167 | 33,928 | 36,962 | 40,179 | 43,690 | 185,926 | 467,677 |
| Minnesota | 0 | 0 | 0 | 0 | 0 | 0 | C |
| Mississippi | -766 | -834 | -908 | -987 | -1,073 | -4,568 | -11,490 |
| Missouri | 32,931 | 35,848 | 39,054 | 42,453 | 46,162 | 196,447 | 494,142 |
| Montana | -1,320 | -1,437 | -1,566 | -1,702 | -1,851 | -7,876 | -19,812 |
| Nebraska | 6,883 | 7,492 | 8,162 | 8,873 | 9,648 | 41,059 | 103,278 |
| Nevada | 0 | 0 | 0 | 0 | 0 | 0 | C |
| New Hampshire | 0 | 0 | 0 | 0 | 0 | 0 | C |
| New Jersey | 0 | 0 | 0 | 0 | 0 | 0 | C |
| New Mexico | -6,865 | -7,474 | -8,142 | -8,851 | -9,624 | -40,955 | -103,018 |
| New York | 0 | 0 | 0 | 0 | 0 | 0 | C |
| North Carolina | -10,194 | -11,097 | -12,089 | -13,142 | -14,290 | -60,811 | -152,964 |
| North Dakota | 1,996 | 2,173 | 2,367 | 2,573 | 2,798 | 11,908 | 29,952 |
| Ohio | 48,999 | 53,340 | 58,110 | 63,168 | 68,687 | 292,304 | 735,259 |
| Oklahoma | -3,010 | -3,276 | -3,569 | -3,880 | -4,219 | -17,955 | -45,164 |
| Oregon | -2,095 | -2,280 | -2,484 | -2,700 | -2,936 | -12,495 | -31,431 |
| Pennsylvania | 41,897 | 45,609 | 49,687 | 54,012 | 58,731 | 249,936 | 628,685 |
| Rhode Island | 4,591 | 4,998 | 5,445 | 5,919 | 6,436 | 27,390 | 68,896 |
| South Carolina | -566 | -617 | -672 | -730 | -794 | -3,379 | -8,499 |
| South Dakota | 1,888 | 2,055 | 2,239 | 2,433 | 2,646 | 11,260 | 28,324 |
| Tennessee | -2,443 | -2,659 | -2,897 | -3,149 | -3,424 | -14,573 | -36,656 |
| Texas | -62,320 | -67,841 | -73,908 | -80,341 | -87,360 | -371,770 | -935,148 |
| Utah | -1,044 | -1,137 | -1,239 | -1,346 | -1,464 | -6,231 | -15,672 |
| Vermont | -1,671 | -1,819 | -1,982 | -2,155 | -2,343 | -9,970 | -25,078 |
| Virginia | -5,382 | -5,858 | -6,382 | -6,938 | -7,544 | -32,105 | -80,755 |
| Washington | -11,693 | -12,729 | -13,867 | -15,075 | -16,391 | -69,756 | -175,463 |
| West Virginia | -135 | -147 | -160 | -174 | -189 | -806 | -2,027 |
| Wisconsin | 15,463 | 16,833 | 18,339 | 19,935 | 21,676 | 92,246 | 232,035 |
| Wyoming | -742 | -808 | -880 | -957 | -1,041 | -4,429 | -11,140 |
| Total, United States | -30,652 | -33,368 | -36,352 | -39,516 | -42,968 | -182,855 | -459,953 |
| Funding Gains | 218,243 | 237,577 | 258,823 | 281,352 | 305,931 | 1,301,925 | 3,274,850 |
| Funding Losses | -248,895 | -270,945 | -295,175 | -320,868 | -348,899 | -1,484,781 | -3,734,802 |

Source: PricewaterhouseCoopers calculations.

Note: An asterisk (*) denotes a positive shift of less than \$500. A negative asterisk (-*) denotes a negative shift of less than \$500. States with zeros would have identical reimbursement rates using unadjusted or adjusted population counts. See footnote 12 in main report.

Table D-6. Estimated Funding Effect of Census 2000 Undercount by State: Rehabilitation Services, FY 2002-2012 [Fiscal years: thousands of dollars]

| State | 2002 | 2003 | 2004 | 2005 | 2006 | 2002-2006 | 2002-2011 |
|----------------------|-----------|-----------|-----------|--------|-----------|-----------|-----------|
| Alabama | -7 | -7 | -8 | -8 | -8 | -38 | -80 |
| Alaska | -139 | -142 | -146 | -150 | -153 | -730 | -1,556 |
| Arizona | -187 | -191 | -196 | -201 | -206 | -982 | -2,095 |
| Arkansas | -41 | -42 | -43 | -44 | -45 | -216 | -460 |
| California | -1,667 | -1,707 | -1,752 | -1,798 | -1,843 | -8,767 | -18,693 |
| Colorado | -48 | -49 | -50 | -51 | -53 | -251 | -535 |
| Connecticut | 82 | 84 | 87 | 89 | 91 | 433 | 923 |
| Delaware | -35 | -36 | -37 | -38 | -39 | -185 | -395 |
| District of Columbia | -56 | -58 | -59 | -61 | -62 | -297 | -632 |
| Florida | -139 | -143 | -146 | -150 | -154 | -732 | -1,560 |
| Georgia | -357 | -365 | -375 | -385 | -394 | -1,876 | -4,000 |
| Hawaii | -176 | -181 | -185 | -190 | -195 | -927 | -1,977 |
| Idaho | -92 | -95 | -97 | -100 | -102 | -485 | -1,035 |
| Illinois | 549 | 562 | 577 | 592 | 607 | 2,887 | 6,156 |
| Indiana | 371 | 380 | 390 | 400 | 410 | 1,953 | 4,163 |
| Iowa | 306 | 314 | 322 | 330 | 339 | 1,611 | 3,436 |
| Kansas | 209 | 214 | 219 | 225 | 231 | 1,097 | 2,339 |
| Kentucky | -32 | -32 | -33 | -34 | -35 | -167 | -355 |
| Louisiana | -112 | -114 | -117 | -120 | -123 | -587 | -1,251 |
| Maine | -30 | -30 | -31 | -32 | -33 | -156 | -332 |
| Maryland | -162 | -166 | -170 | -175 | -179 | -852 | -1,816 |
| Massachusetts | 343 | 351 | 361 | 370 | 379 | 1,804 | 3,847 |
| Michigan | 688 | 705 | 723 | 742 | 761 | 3,619 | 7,717 |
| Minnesota | 606 | 620 | 636 | 653 | 669 | 3,184 | 6,789 |
| Mississippi | -27 | -28 | -28 | -29 | -30 | -142 | -302 |
| Missouri | 596 | 610 | 626 | 642 | 658 | 3,132 | 6,678 |
| Montana | -56 | -57 | -58 | -60 | -61 | -292 | -623 |
| Nebraska | 155 | 159 | 163 | 168 | 172 | 817 | 1,742 |
| Nevada | -131 | -134 | -138 | -141 | -145 | -689 | -1,469 |
| New Hampshire | 8 | 8 | 9 | 9 | 9 | 44 | 93 |
| New Jersey | 29 | 30 | 31 | 31 | 32 | 153 | 327 |
| New Mexico | -214 | -220 | -225 | -231 | -237 | -1,127 | -2,404 |
| New York | 218 | 223 | 229 | 235 | 241 | 1,145 | 2,442 |
| North Carolina | -212 | -217 | -223 | -229 | -235 | -1,116 | -2,379 |
| North Dakota | 71 | 72 | 74 | 76 | 78 | 372 | 794 |
| Ohio | 1,029 | 1,054 | 1,082 | 1,110 | 1,138 | 5,413 | 11,541 |
| Oklahoma | -118 | -121 | -124 | -127 | -130 | -620 | -1,322 |
| Oregon | -46 | -47 | -48 | -50 | -51 | -242 | -515 |
| Pennsylvania | 636 | 652 | 668 | 686 | 703 | 3,345 | 7,132 |
| Rhode Island | 48 | 49 | 50 | 51 | 53 | 251 | 535 |
| South Carolina | -13 | -13 | -13 | -14 | -14 | -66 | -141 |
| South Dakota | 70 | 72 | 74 | 76 | 78 | 370 | 789 |
| Tennessee | -43 | -44 | -45 | -47 | -48 | -227 | -484 |
| Texas | -1,787 | -1,829 | -1,877 | -1,926 | -1,974 | -9,393 | -20,028 |
| Utah | -58 | -59 | -61 | -62 | -64 | -303 | -647 |
| Vermont | -30 | -31 | -32 | -33 | -34 | -160 | -341 |
| Virginia | -153 | -157 | -161 | -165 | -169 | -805 | -1,717 |
| Washington | -195 | -200 | -205 | -210 | -216 | -1,027 | -2,189 |
| West Virginia | -193 | -3 | -203 | -210 | -210 | -1,027 | -2,165 |
| Wisconsin | -3 378 | -3 387 | -3 397 | 408 | -3 418 | 1,988 | 4,238 |
| Wyoming | -28 | -29 | -30 | -30 | -31 | -148 | -316 |
| Total, United States | 0 | 0 | 0 | 0 | 0 | 0 | (|
| Funding Gains | 6,394 | 6,548 | 6,718 | 6,893 | 7,066 | 33,618 | 71,680 |
| Funding Losses | -6,394 | -6,548 | -6,718 | -6,893 | -7,066 | -33,618 | -71,680 |

Source: PricewaterhouseCoopers calculations.

Note: An asterisk (*) denotes a positive shift of less than \$500. A negative asterisk (-*) denotes a negative shift of less than \$500.

Table D-7. Estimated Funding Effect of Census 2000 Undercount by State: Social Services Block Grant,

FY 2002-2012 [Fiscal years; thousands of dollars]

| State | 2002 | 2003 | 2004 | 2005 | 2006 | 2002-2006 | 2002-2011 |
|----------------------|--------|--------|--------|--------|--------|-------------|-----------|
| Alabama | -4 | -4 | -4 | -4 | -4 | -19 | -39 |
| Alaska | -59 | -59 | -59 | -59 | -59 | -295 | -590 |
| Arizona | -76 | -76 | -76 | -76 | -76 | -382 | -764 |
| Arkansas | -17 | -17 | -17 | -17 | -17 | -83 | -167 |
| California | -718 | -718 | -718 | -718 | -718 | -3,589 | -7,179 |
| Colorado | -21 | -21 | -21 | -21 | -21 | -107 | -214 |
| Connecticut | 42 | 42 | 42 | 42 | 42 | 212 | 423 |
| Delaware | -15 | -15 | -15 | -15 | -15 | -77 | -154 |
| District of Columbia | -32 | -32 | -32 | -32 | -32 | -160 | -320 |
| Florida | -61 | -61 | -61 | -61 | -61 | -304 | -608 |
| Georgia | -149 | -149 | -149 | -149 | -149 | -745 | -1,490 |
| Hawaii | -74 | -74 | -74 | -74 | -74 | -370 | -739 |
| Idaho | -37 | -37 | -37 | -37 | -37 | -183 | -366 |
| Illinois | 240 | 240 | 240 | 240 | 240 | 1,198 | 2,396 |
| Indiana | 151 | 151 | 151 | 151 | 151 | 754 | 1,507 |
| Iowa | 124 | 124 | 124 | 124 | 124 | 622 | 1,244 |
| Kansas | 85 | 85 | 85 | 85 | 85 | 427 | 855 |
| Kentucky | -13 | -13 | -13 | -13 | -13 | -67 | -134 |
| Louisiana | -45 | -45 | -45 | -45 | -45 | -225 | -451 |
| Maine | -12 | -12 | -12 | -12 | -12 | -61 | -121 |
| Maryland | -73 | -73 | -73 | -73 | -73 | -364 | -729 |
| 3 | | | | | 160 | -364 802 | |
| Massachusetts | 160 | 160 | 160 | 160 | | | 1,604 |
| Michigan | 287 | 287 | 287 | 287 | 287 | 1,435 | 2,870 |
| Minnesota | 263 | 263 | 263 | 263 | 263 | 1,315 | 2,630 |
| Mississippi | -11 | -11 | -11 | -11 | -11 | -56 | -111 |
| Missouri | 244 | 244 | 244 | 244 | 244 | 1,219 | 2,438 |
| Montana | -22 | -22 | -22 | -22 | -22 | -110 | -219 |
| Nebraska | 64 | 64 | 64 | 64 | 64 | 320 | 640 |
| Nevada | -58 | -58 | -58 | -58 | -58 | -288 | -575 |
| New Hampshire | 3 | 3 | 3 | 3 | 3 | 17 | 35 |
| New Jersey | 13 | 13 | 13 | 13 | 13 | 66 | 132 |
| New Mexico | -84 | -84 | -84 | -84 | -84 | -420 | -840 |
| New York | 98 | 98 | 98 | 98 | 98 | 490 | 980 |
| North Carolina | -89 | -89 | -89 | -89 | -89 | -443 | -885 |
| North Dakota | 28 | 28 | 28 | 28 | 28 | 139 | 279 |
| Ohio | 425 | 425 | 425 | 425 | 425 | 2,126 | 4,253 |
| Oklahoma | -47 | -47 | -47 | -47 | -47 | -237 | -473 |
| Oregon | -20 | -20 | -20 | -20 | -20 | -98 | -196 |
| Pennsylvania | 267 | 267 | 267 | 267 | 267 | 1,334 | 2,668 |
| Rhode Island | 20 | 20 | 20 | 20 | 20 | 101 | 202 |
| South Carolina | -6 | -6 | -6 | -6 | -6 | -29 | -59 |
| South Dakota | 28 | 28 | 28 | 28 | 28 | 141 | 282 |
| Tennessee | -19 | -19 | -19 | -19 | -19 | -93 | -186 |
| Texas | -739 | -739 | -739 | -739 | -739 | -3,694 | -7,388 |
| Utah | -23 | -23 | -23 | -23 | -23 | -116 | -233 |
| Vermont | -12 | -12 | -12 | -12 | -12 | -62 | -125 |
| Virginia | -67 | -67 | -67 | -67 | -67 | -333 | -665 |
| Washington | -85 | -85 | -85 | -85 | -85 | -424 | -847 |
| West Virginia | -2 | -2 | -2 | -2 | -2 | -8 | -16 |
| Wisconsin | 156 | 156 | 156 | 156 | 156 | 780 | 1,560 |
| Wyoming | -12 | -12 | -12 | -12 | -12 | -58 | -116 |
| Total, United States | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Funding Gains | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 | 13,499 | 26,998 |
| Funding Losses | -2,700 | -2,700 | -2,700 | -2,700 | -2,700 | -13,499 | -26,998 |

Funding Losses -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -2,700 -

Table D-8. Estimated Funding Effect of Census 2000 Undercount by State: Substance Abuse Prevention and Treatment Block Grant, FY 2002-2012 [Fiscal years; thousands of dollars]

| State | 2003 | 2004 | 2005 | 2006 | 2007 | 2003-2007 | 2003-2012 |
|------------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-------------------|-------------------|
| Alabama | 56 | 57 | 59 | 60 | 61 | 293 | 621 |
| Alaska | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arizona | -109 | -112 | -114 | -117 | -119 | -571 | -1,208 |
| Arkansas | 3 | 3 | 4 | 4 | 4 | 18 | 38 |
| California | -1,591 | -1,626 | -1,663 | -1,700 | -1,738 | -8,317 | -17,604 |
| Colorado | -30 | -31 | -32 | -32 | -33 | -158 | -335 |
| Connecticut | 58 | 59 | 60 | 61 | 63 | 301 | 636 |
| Delaware | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| District of Columbia | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Florida | 17 | 18 | 18 | 18 | 19 | 90 | 190 |
| Georgia | -149 | -152 | -156 | -159 | -163 | -779 | -1,649 |
| Hawaii | -95 | -97 | -99 | -101 | -104 | -496 | -1,049 |
| Idaho | -46 | -47 | -48 | -49 | -50 | -242 | -512 |
| Illinois | 330 | 337 | 345 | 352 | 360 | 1,724 | 3,649 |
| Indiana | 228 | 233 | 238 | 244 | 249 | 1,192 | 2,523 |
| Iowa | 151 | 154 | 158 | 161 | 165 | 790 | 1,672 |
| Kansas | 113 | 115 | 118 | 120 | 123 | 589 | 1,248 |
| Kentucky | 19 | 20 | 20 | 21 | 21 | 100 | 213 |
| Louisiana | 12 | 13 | 13 | 13 | 13 | 64 | 136 |
| Maine | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maryland | -100 | -102 | -105 | -107 | -109 | -524 | -1,108 |
| Massachusetts | 195 | 199 | 204 | 208 | 213 | 1,020 | 2,158 |
| Michigan | 411 | 420 | 430 | 439 | 449 | 2,149 | 4,548 |
| Minnesota | 356 | 363 | 372 | 380 | 388 | 1,859 | 3,934 |
| Mississippi | 27 | 28 | 28 | 29 | 30 | 142 | 301 |
| Missouri | 338 | 345 | 353 | 361 | 369 | 1,766 | 3,737 |
| Montana | 0 | 0 | 0 | 0 | 0 | 0 | 5,757 |
| Nebraska | 84 | 86 | 88 | 89 | 91 | 438 | 927 |
| Nevada | -101 | -103 | -106 | -108 | -111 | -529 | -1,120 |
| New Hampshire | 0 | 0 | 0 | 0 | 0 | 0 | -1,120 |
| New Jersey | -29 | -30 | -31 | -31 | -32 | -153 | -324 |
| New Mexico | -118 | -121 | -124 | -127 | -129 | -619 | -1,310 |
| New York | 171 | 174 | 178 | 182 | 186 | 892 | 1,887 |
| North Carolina | -47 | -48 | -49 | -50 | -51 | -246 | -520 |
| North Dakota | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ohio | 685 | 701 | 716 | 732 | 749 | 3,583 | 0 7,584 |
| Oklahoma | -3 | -3 | -3 | -3 | -3 | 3,383 -17 | |
| | -3 -4 | -3 -4 | -3 -4 | -3 -4 | | | -35 |
| Oregon | | | 473 | 483 | -4 494 | -21 2.265 | -45 5,006 |
| Pennsylvania | 452 0 | 462 | | | | 2,365 | |
| Rhode Island | | 0 | 39 | 0 | 0 | 0 | 415 |
| South Carolina | 38 | 38 | | 40 | 41 | 196 | 415 |
| South Dakota | 0 | 0 | 0 | 0 | 0 | 0 | 164 |
| Tennessee | 42 | 43 | 44 | 45 | 46 | 219 | 464 |
| Texas | -1,368 | -1,398 | -1,429 | -1,461 | -1,494 | -7,150 | -15,134 |
| Utah | -31 | -32 | -33 | -33 | -34 | -164 | -346 |
| Vermont | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Virginia | -82 | -84 | -86 | -88 | -90 | -431 525 | -912 |
| Washington | -100 | -103 | -105 | -107 | -110 | -525 | -1,111 |
| West Virginia | * | * | * | * | * | 2 | 4 |
| Wisconsin | 220 | 225 | 230 | 235 | 240 | 1,148 | 2,430 |
| Wyoming | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total, United States | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Funding Gains Funding Losses | 0 4,005 | 4,095 -4,095 | 4,186 -4,186 | 4,279 -4,279 | 4,375 -4,375 | 20,940 -20,940 | 44,321 -44,321 |

Source: PricewaterhouseCoopers calculations.

Note: An asterisk (*) denotes a positive shift of less than \$500. A negative asterisk (-*) denotes a negative shift of less than \$500. States with zeros would have identical reimbursement rates using unadjusted or adjusted population counts.

Table D-9. Estimated Funding Effect of Census 2000 Undercount by State: Vocational Education,

FY 2002-2012 [Fiscal years; thousands of dollars]

| State | 2002 | 2003 | 2004 | 2005 | 2006 | 2002-2006 | 2002-2011 |
|----------------------|----------|------------|------------|----------|----------|-----------|----------------|
| Alabama | -38 | -39 | -40 | -40 | -41 | -198 | -419 |
| Alaska | 0 | 0 | 0 | 0 | 0 | 0 | (|
| Arizona | -80 | -81 | -83 | -85 | -87 | -417 | -882 |
| Arkansas | -26 | -26 | -27 | -27 | -28 | -134 | -283 |
| California | -672 | -687 | -702 | -718 | -734 | -3,514 | -7,438 |
| Colorado | -19 | -20 | -20 | -20 | -21 | -100 | -211 |
| Connecticut | 24 | 25 | 25 | 26 | 27 | 127 | 270 |
| Delaware | -14 | -14 | -14 | -15 | -15 | -71 | -151 |
| District of Columbia | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Florida | -113 | -115 | -118 | -120 | -123 | -589 | -1,247 |
| Georgia | -205 | -209 | -214 | -219 | -223 | -1.069 | -2,263 |
| Hawaii | 0 | 0 | 0 | 0 | 0 | 0 | -2,203 |
| Idaho | -46 | -47 | -48 | -49 | -50 | -238 | -504 |
| Illinois | 328 | 335 | 343 | 351 | 358 | 1,716 | 3,631 |
| Indiana | 189 | | 343 197 | 202 | 206 | 987 | |
| | 171 | 193 175 | 179 | 183 | 187 | 896 | 2,089 1,897 |
| Iowa | | | | | | | |
| Kansas | 120 | 123 | 126 | 129 | 131 | 629 | 1,331 |
| Kentucky | -37 | -37 | -38 | -39 | -40 | -191 | -405 |
| Louisiana | -98 | -100 | -103 | -105 | -107 | -514 | -1,087 |
| Maine | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maryland | -81 | -83 | -85 | -87 | -89 | -424 | -898 |
| Massachusetts | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Michigan | 364 | 372 | 380 | 389 | 397 | 1,901 | 4,024 |
| Minnesota | 259 | 265 | 271 | 277 | 283 | 1,356 | 2,869 |
| Mississippi | -31 | -31 | -32 | -33 | -34 | -161 | -340 |
| Missouri | 302 | 309 | 316 | 323 | 330 | 1,579 | 3,341 |
| Montana | -22 | -22 | -23 | -23 | -24 | -113 | -238 |
| Nebraska | 89 | 91 | 93 | 95 | 97 | 466 | 987 |
| Nevada | -59 | -60 | -62 | -63 | -64 | -308 | -653 |
| New Hampshire | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New Jersey | 33 | 34 | 35 | 35 | 36 | 174 | 367 |
| New Mexico | -56 | -57 | -59 | -60 | -61 | -293 | -621 |
| New York | 132 | 135 | 138 | 141 | 144 | 691 | 1,462 |
| North Carolina | -134 | -137 | -141 | -144 | -147 | -703 | -1,488 |
| North Dakota | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ohio | 485 | 495 | 507 | 518 | 529 | 2,534 | 5,363 |
| Oklahoma | -98 | -100 | -102 | -105 | -107 | -512 | -1,083 |
| Oregon | -33 | -33 | -34 | -35 | -36 | -170 | -360 |
| Pennsylvania | 256 | 262 | 268 | 274 | 280 | 1,340 | 2,835 |
| Rhode Island | 0 | 0 | 0 | 0 | 0 | 0 | 2,033 |
| South Carolina | -31 | -32 | -32 | -33 | -34 | -161 | -341 |
| South Dakota | 13 | 13 | 13 | 13 | 14 | 66 | 139 |
| Tennessee | -56 | -57 | -58 | -60 | -61 | -292 | -618 |
| Texas | -806 | -824 | -842 | -861 | -880 | -4,213 | -8,916 |
| | | | | | | | |
| Utah | -27 0 | -27 0 | -28 0 | -29 0 | -29 0 | -140 0 | -297 |
| Vermont | | | | | | | 0 |
| Virginia | -80 | -82 | -84 | -86 | -88 | -419 | -887 |
| Washington | -109 | -111 | -114 | -116 | -119 | -568 | -1,203 |
| West Virginia | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wisconsin | 201 | 206 | 210 | 215 | 220 | 1,052 | 2,227 |
| Wyoming | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total, United States | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Funding Gains | 2,967 | 3,033 | 3,101 | 3,170 | 3,241 | 15,513 | 32,835 |
| Funding Losses | -2,967 | -3,033 | -3,101 | -3,170 | -3,241 | -15,513 | -32,835 |

Source: PricewaterhouseCoopers calculations.

Note: An asterisk (*) denotes a positive shift of less than \$500. A negative asterisk (-*) denotes a negative shift of less than \$500. States with zeros would have identical reimbursement rates using unadjusted or adjusted population counts.



Appendix E. Estimated Funding Effect of Census 2000 Undercount by County: Eight Federal Grant Programs, FY 2002-2012

| | Between- | Within- | Net Effect | | |
|-----------------------|---------------|---------------|-------------|----------------------|--|
| State, County | State Effects | State Effects | Amount | | |
| | (Thousands) | (Thousands) | (Thousands) | Percent ¹ | |
| Alabama | - | - | | | |
| Jefferson County | -722 | -19,846 | -20,568 | -0.4% | |
| Arizona | | | | | |
| Maricopa County | -46,227 | 48,614 | 2,387 | | |
| Pima County | -12,696 | 11,000 | -1,696 | | |
| California | | | | | |
| Alameda County | -64,200 | 20,600 | -43,599 | -0.49 | |
| Contra Costa County | -42,192 | 45,820 | 3,628 | 0.19 | |
| Fresno County | -35,548 | -4,494 | -40,042 | -0.79 | |
| Kern County | -29,422 | 7,574 | -21,848 | -0.49 | |
| Los Angeles County | -423,302 | -212,558 | -635,860 | -0.99 | |
| Orange County | -126,568 | 64,807 | -61,761 | -0.39 | |
| Riverside County | -68,720 | 43,634 | -25,086 | -0.29 | |
| Sacramento County | -54,406 | 41,399 | -13,008 | -0.19 | |
| San Bernardino County | -76,014 | 25,725 | -50,289 | -0.49 | |
| San Diego County | -125,124 | 53,499 | -71,626 | -0.3 | |
| San Francisco County | -34,539 | 3,962 | -30,578 | -0.59 | |
| San Joaquin County | -25,062 | 7,310 | -17,752 | -0.4 | |
| San Mateo County | -31,446 | 25,268 | -6,177 | -0.1 | |
| Santa Clara County | -74,821 | 48,889 | -25,932 | -0.2 | |
| Ventura County | -33,493 | 25,711 | -7,782 | -0.19 | |
| Colorado | | | | | |
| Denver County | -184 | -9,072 | -9,257 | -0.3 | |
| El Paso County | -172 | 8,539 | 8,368 | 0.3 | |
| Jefferson County | -175 | 18,354 | 18,179 | 0.7 | |
| Connecticut | | | | | |
| Fairfield County | 683 | 1,591 | 2,274 | | |
| Hartford County | 663 | -4,412 | -3,749 | | |
| New Haven County | 638 | 3,651 | 4,288 | 0.1 | |
| Delaware | | | | | |
| New Castle County | -615 | 2,237 | 1,622 | | |
| Florida | | | | | |
| Broward County | -9,306 | 3,303 | -6,003 | -0.19 | |
| Miami-Dade County | -12,921 | -92,026 | -104,947 | -0.8 | |
| Duval County | -4,466 | 4,183 | -283 | | |
| Hillsborough County | -5,728 | 6,585 | 857 | | |
| Orange County | -5,140 | -1,665 | -6,804 | -0.1 | |
| Palm Beach County | -6,486 | 14,506 | 8,020 | 0.1 | |
| Pinellas County | -5,284 | 24,111 | 18,827 | 0.3 | |
| Georgia | | | | | |
| Cobb County | -15,498 | -436 | -15,934 | -0.4 | |
| DeKalb County | -16,980 | -28,267 | -45,246 | -1.1 | |
| Fulton County | -20,808 | -29,435 | -50,243 | -1.0 | |
| Gwinnett County | -15,005 | 2,965 | -12,040 | -0.39 | |

Appendix E. Estimated Funding Effect of Census 2000 Undercount by County, continued

| Appendix E. Estimated Fun | Between- | Within- | Net E | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|----------------|----------------------|
| State, County | State Effects | State Effects | Amount | Ance |
| State, County | | | | Percent ¹ |
| Hawaii | (Thousands) | (Thousands) | (Thousands) | rercent |
| Honolulu County | -76,307 | 5,911 | -70,396 | -1.3% |
| Illinois | -70,307 | 3,911 | -70,390 | -1.5 /0 |
| Cook County | 9,125 | -201,695 | -192,570 | -0.5% |
| | | | | |
| DuPage County | 1,535 | 32,506 | 34,041 | 0.6% |
| Lake County | 1,094 | 13,728 | 14,821 | 0.3% |
| Will County | 852 | 17,852 | 18,705 | 0.6% |
| Indiana Control of the Control of th | 22 204 | 12 220 | 10.075 | 0.20/ |
| Marion County | 32,204 | -13,328 | 18,875 | 0.3% |
| Kentucky | 2 20 1 | 2.702 | 710 | * |
| Jefferson County | -3,304 | 2,792 | -512 | 4 |
| Maryland | | | | |
| Baltimore City ² | -682 | -28,288 | -28,970 | -0.7% |
| Baltimore County | -790 | 8,194 | 7,404 | 0.2% |
| Montgomery County | -914 | 1,773 | 859 | * |
| Prince George's County | -839 | -25,851 | -26,690 | -0.5% |
| Massachusetts | | | | |
| Bristol County | 864 | 10,465 | 11,329 | 0.2% |
| Essex County | 1,169 | 969 | 2,138 | * |
| Middlesex County | 2,368 | 17,610 | 19,978 | 0.1% |
| Norfolk County | 1,051 | 21,335 | 22,386 | 0.4% |
| Suffolk County | 1,114 | -58,776 | -57,661 | -0.9% |
| Worcester County | 1,213 | 7,767 | 8,980 | 0.1% |
| Michigan | , | , | , | |
| Kent County | 29,546 | 5,806 | 35,352 | 0.8% |
| Macomb County | 40,546 | 23,228 | 63,774 | 1.1% |
| Oakland County | 61,433 | 12,756 | 74,189 | 0.8% |
| Wayne County | 106,036 | -115,309 | -9,273 | -0.1% |
| Minnesota | | | - , | |
| Hennepin County | 4,659 | -36,992 | -32,333 | -0.4% |
| Ramsey County | 2,133 | -11,410 | -9,277 | -0.2% |
| Missouri | 2,100 | 11,110 | | 0,2,0 |
| Jackson County | 61,036 | -34,949 | 26,087 | 0.4% |
| St. Louis County | 94,723 | -12,962 | 81,761 | 0.8% |
| Nevada | <i>y</i> 1,723 | 12,702 | 01,701 | 0.070 |
| Clark County | -3,161 | 10,907 | 7,746 | 0.2% |
| New Jersey | 5,101 | 10,507 | 7,710 | 0.270 |
| Bergen County | 153 | 15,674 | 15,826 | 0.2% |
| Camden County | 88 | 6,913 | 7,001 | 0.2% |
| Essex County | 137 | -44,037 | -43,900 | -0.7% |
| Hudson County | 105 | -49,981 | -49,876 | -1.0% |
| Middlesex County | 130 | 3,964 | 4,094 | 0.1% |
| Monmouth County | 106 | | | 0.1% |
| Ocean County | | 18,700 | 18,807 | |
| 2 | 88 | 21,788 | 21,876 | 0.6% |
| Union County | 90 | -7,586 | -7,496 | -0.2% |

| | | ercount by Coul | nty, continued |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | Net E | ffect |
| State Effects | State Effects | Amount | |
| (Thousands) | (Thousands) | (Thousands) | Percent ¹ |
| _ | | <u> </u> | |
| -33,641 | 35,946 | 2,305 | * |
| | | | |
| 644 | -362,643 | -361,999 | -1.6% |
| 459 | 94,212 | 94,671 | 0.6% |
| 1,192 | -269,695 | -268,503 | -0.6% |
| 355 | 68,026 | 68,381 | 0.6% |
| 645 | 268,842 | 269,487 | 1.2% |
| 743 | -212,837 | -212,094 | -0.8% |
| 1,078 | -61,842 | -60,764 | -0.2% |
| 214 | 56 239 | 56 454 | 0.8% |
| | · · | | 1.3% |
| | | | 0.5% |
| 110 | 00,010 | 00,155 | 0.57 |
| -14,072 | -20,426 | -34,498 | -0.6% |
| | | | -0.3% |
| | -,,,,, | , | |
| 97.745 | -43,725 | 54.020 | 0.5% |
| | | | 0.6% |
| | , | | 0.5% |
| | | | 0.7% |
| | · · | | 0.9% |
| | ., | , | |
| -9,568 | -14.869 | -24,437 | -0.5% |
| | | | -0.3% |
| | , | , | |
| -6,491 | 18,207 | 11,717 | 0.2% |
| | , | , | |
| 69,897 | 46,631 | 116,528 | 0.9% |
| | | | 0.9% |
| | | | 0.8% |
| | | | 0.9% |
| | | | 0.1% |
| | ĺ | ĺ | |
| 42,106 | 15,920 | 58,026 | 0.8% |
| | ĺ | ĺ | |
| -3,884 | -18,895 | -22,779 | -0.4% |
| -6,117 | -43,818 | -49,935 | -0.5% |
| | | | |
| -67,777 | -13,601 | -81,378 | -0.9% |
| -107,966 | -48,311 | -156,278 | -1.1% |
| -33,069 | -13,728 | -46,797 | -1.0% |
| -165,464 | -68,936 | -234,400 | -1.0% |
| -27,709 | -23,907 | -51,615 | -1.4% |
| , | | | |
| -70,369 | 8,068 | -62,301 | -0.7% |
| | Between- State Effects (Thousands) -33,641 644 459 1,192 355 645 743 1,078 214 686 446 -14,072 -12,704 97,745 74,956 59,272 39,201 38,068 -9,568 -8,161 -6,491 69,897 32,593 30,042 40,907 82,761 42,106 -3,884 -6,117 -67,777 -107,966 -33,069 -165,464 | Between-State Effects Within-State Effects (Thousands) (Thousands) -33,641 35,946 644 -362,643 459 94,212 1,192 -269,695 355 68,026 645 268,842 743 -212,837 1,078 -61,842 214 56,239 686 309,855 446 80,046 -14,072 -20,426 -12,704 -5,006 97,745 -43,725 74,956 -24,186 59,272 -21,898 39,201 -6,952 38,068 4,354 -9,568 -14,869 -8,161 -5,506 -6,491 18,207 69,897 46,631 32,593 21,247 30,042 10,219 40,907 22,067 82,761 -65,610 42,106 15,920 -3,884 -18,895 | State Effects (Thousands) State Effects (Thousands) Amount (Thousands) -33,641 35,946 2,305 644 -362,643 -361,999 459 94,212 94,671 1,192 -269,695 -268,503 355 68,026 68,381 645 268,842 269,487 743 -212,837 -212,094 1,078 -61,842 -60,764 214 56,239 56,454 686 309,855 310,542 446 80,046 80,493 -14,072 -20,426 -34,498 -12,704 -5,006 -17,711 97,745 -43,725 54,020 74,956 -24,186 50,770 59,272 -21,898 37,374 39,201 -6,952 32,249 38,068 4,354 42,422 -9,568 -14,869 -24,437 -8,161 -5,506 -13,667 40,907 22,067 62,974 |

Appendix E. Estimated Funding Effect of Census 2000 Undercount by County, continue

| | Between- | Within- | Net Effect | | |
|------------------|---------------|---------------|-------------|----------------------|--|
| State, County | State Effects | State Effects | Amount | | |
| • | (Thousands) | (Thousands) | (Thousands) | Percent ¹ | |
| Utah | , , | , | | | |
| Salt Lake County | -7,009 | 14,914 | 7,904 | 0.2% | |
| Virginia | | | | | |
| Fairfax County | -11,993 | 4,135 | -7,858 | -0.2% | |
| Washington | · | | | | |
| King County | -54,418 | 35,842 | -18,575 | -0.1% | |
| Pierce County | -21,955 | 13,550 | -8,405 | -0.2% | |
| Snohomish County | -18,986 | 22,409 | 3,423 | 0.1% | |
| Wisconsin | | | | | |
| Milwaukee County | 44,147 | -33,665 | 10,481 | 0.2% | |

Source: PricewaterhouseCoopers calculations.

^{*} Denotes less than 0.05%.

¹Net effect as a percent of the adjusted funding level under the eight programs over 2002-2012.

²Baltimore City is an independent city (i.e., it is independent of any county organization).

³Richmond County is included in order to comprise the 5 counties of New York City.



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